



Service Manual

Horizontal Frequency
30 - 83kHz

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SAFETY NOTICE

ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

Revision List

[illegible]

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all AOC Company Equipment. The service procedures recommended by AOC and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. AOC could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, AOC has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by AOC must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

Hereafter throughout this manual, AOC Company will be referred to as AOC.

WARNING

Use of substitute replacement parts, which do not have the same, specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from AOC. AOC assumes no liability, express or implied, arising out of any unauthorized modification of design.

Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:

DANGER-Invisible laser radiation when open AVOID DIRECT EXPOSURE TO BEAM.

CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

Take care during handling the LCD module with backlight unit

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body is grounded through wristband.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

1. Monitor Specifications

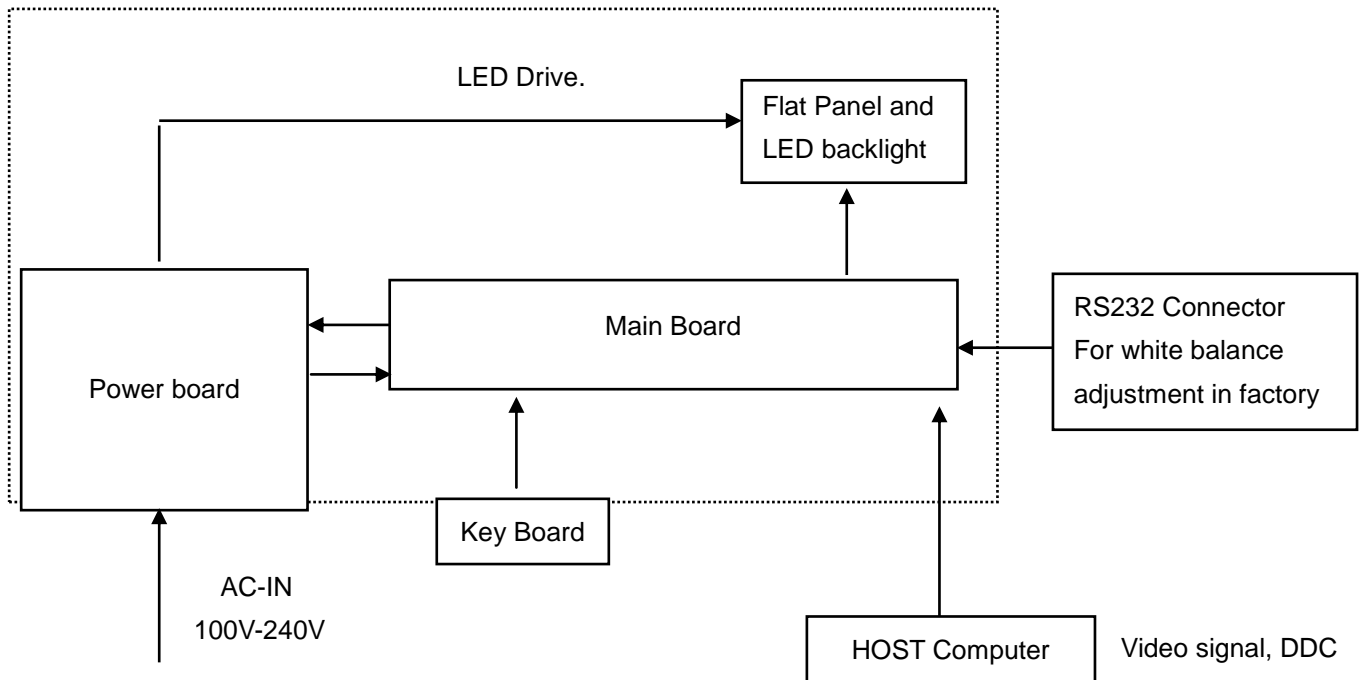
Panel	Model name	e2450Swdak
	Driving system	TFT Color LCD
	Viewable Image Size	59.8cm diagonal
	Pixel pitch	0.2715mm(H) x 0.2715mm(V)
	Video	R, G, B Analog Interface & Digital Interface
	Separate Sync.	H/V TTL
	Display Color	16.7M Colors
	Dot Clock	148.5MHz
Resolution	Horizontal scan range	30 kHz - 83 kHz
	Horizontal scan Size(Maximum)	521.28mm
	Vertical scan range	55 Hz - 75 Hz
	Vertical scan Size(Maximum)	293.22mm
	Optimal preset resolution	1920 x 1080@60Hz
	Plug & Play	VESA DDC2B/CI
	Input Connector	D-Sub 15pin , DVI 24 pin
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, TMDS
	Power Source	100-240V~, 50/60Hz
	Power Consumption	Active < 30W(typical)
		Standby < 0.5 W
	Off timer	00-24 hrs
	Speakers	2W x 2
Physical Characteristics	Connector Type	15-pin Mini D-Sub , DVI-D
	Signal Cable Type	Detachable
	Dimensions & Weight:	
	Height (with base)	413.95mm
	Width	569.22mm
	Depth	205mm
	Weight (monitor only)	4.202kg
Environmental	Temperature:	
	Operating	0° to 40°
	Non-Operating	-25°to 55°
	Humidity:	
	Operating	10% to 85% (non-condensing)
	Non-Operating	5% to 93% (non-condensing)
	Altitude:	
	Operating	0~ 3658m (0~ 12000 ft)
	Non-Operating	0~ 12192m (0~ 40000 ft)

2.LCD Monitor Description

The LCD monitor will contain a main board, a power board and a key board which house the flat panel control logic, brightness control logic and DDC.

The power part will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.

Monitor Block Diagram



3. Operating Instructions

3.1 General Instructions

Press the power button to turn the monitor on or off. The other control knobs are located at front panel of the monitor (See Figure). By changing these settings, the picture can be adjusted to your personal preferences.

* The power cord should be connected.

* Press the power button to turn on the monitor. The power indicator will light up.

3.2 Control Buttons and Connections



Power

Press the Power button to turn on/off the monitor.

Eco (DCR)/ -

Press the Eco key continuously to select the Eco mode of brightness and DCR on when there is no OSD. (Eco mode hot key may not be available in all models).

Volume adjustment hot key:

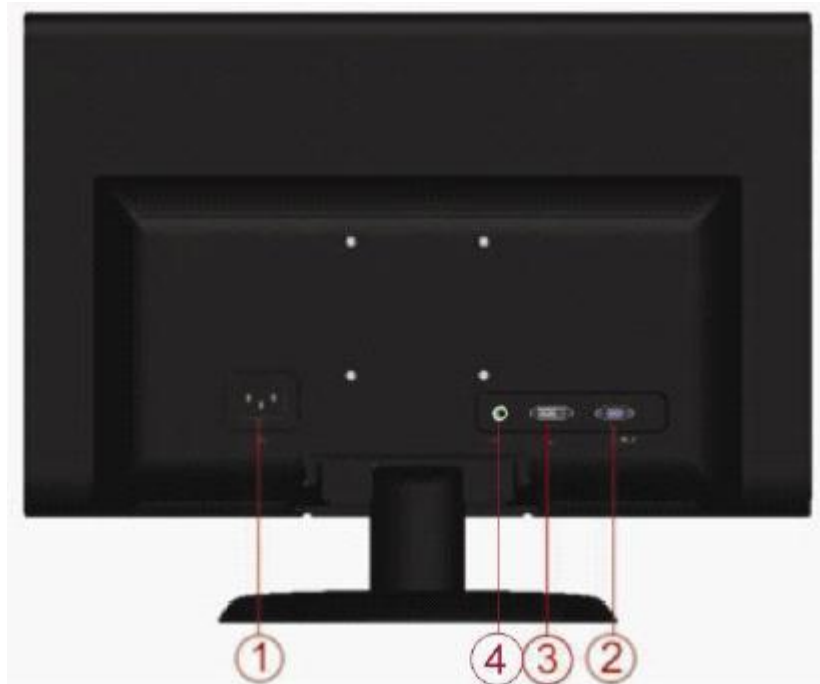
When there is no OSD, press Volume+ to active volume djustment bar, press - or + to adjust volume(Only for the models with speakers)

Auto / Exit

When there is no OSD, press Auto/Source button continuously about 3 second to do auto configure

Source hot key

When the OSD is closed, press Source button will be Source hot key function. Press Source button continuously to select the input source showed in the message bar , press Menu/Enter button to change to the source selected.



1. Power
2. Analog (DB-15 VGA cable)
3. DVI
4. Audio

To protect equipment, always turn off the PC and LCD monitor before connecting.

- 1 Connect the power cable to the AC port on the back of the monitor.
- 2 Connect one end of the 15-pin D-Sub cable to the back of the monitor and connect the other end to the computer's D-Sub port.
3. Connect one end of the DVI cable to the back of the monitor and connect the other end to the computer's DVI port.
- 4 Connect the audio cable to audio in port on the back of the monitor. 5 Turn on your monitor and computer.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

3.3 OSD Setting

Basic and simple instruction on the control keys.



- 1) Press the **MENU-button** to activate the OSD window.
- 2) Press - **or +** to navigate through the functions. Once the desired function is highlighted, press the **MENU-button** to activate it. press - **or +** to navigate through the sub-menu functions. Once the desired function is highlighted, press **MENU-button** to activate it.
- 3) Press - **or +** to change the settings of the selected function. Press **AUTO** to exit. If you want to adjust any other function, repeat steps 2-3.
- 4) OSD Lock Function: To lock the OSD, press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on. To un-lock the OSD - press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on.

Notes:

- 1) If the product has only one signal input, the item of "Input Select" is disable to adjust.
- 2) If the product screen size is 4:3 or input signal resolution is wide format, the item of "Image Ratio" is disable to adjust.
- 3) One of DCR, Color Boost, and Picture Boost functions is active, the other two function is turned off accordingly.

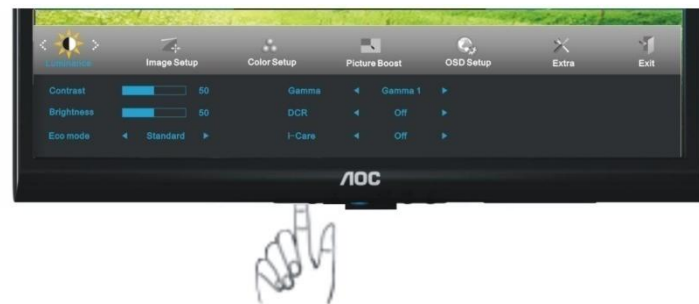
Luminance


1



Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Luminance), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.

4



Press **-** or **+** to adjust.



Press **AUTO** two times to exit.









	Brightness	00-100		Backlight Adjustment
	Contrast	00-100		Contrast from Digital-register.
	Eco mode	Standard		Standard Mode
		Text		Text Mode
		Internet		Internet Mode
		Game		Game Mode
		Movie		Movie Mode
		Sports		Sports Mode
	Gamma	Gamma1		Adjust to Gamma1
		Gamma2		Adjust to Gamma 2
		Gamma3		Adjust to Gamma 3
	DCR	Off		Disable dynamic contrast ratio
		On		Enable dynamic contrast ratio

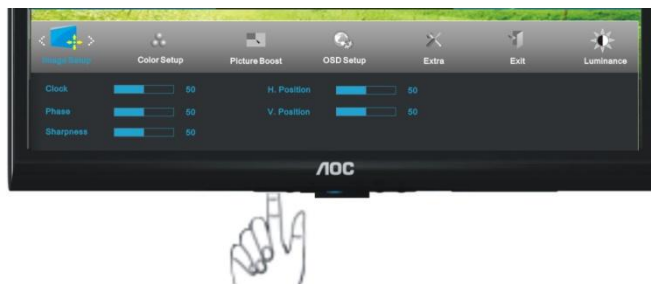
Image Setup

1



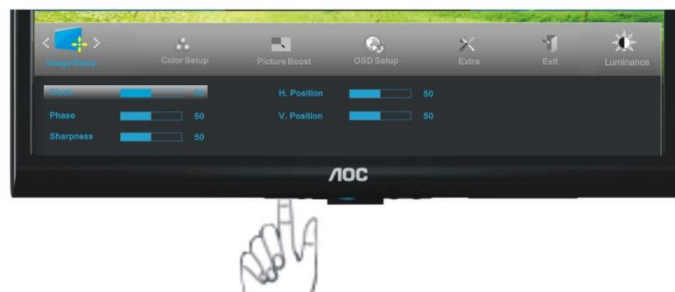
Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Image Setup), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.

4




Press **-** or **+** to adjust.

5



Press **AUTO** two times to exit.

	Clock	00-100	Adjust picture Clock to reduce Vertical-Line noise.
	Phase	00-100	Adjust Picture Phase to reduce Horizontal-Line noise
	Sharpness	00-100	Adjust picture sharpness
	H.Position	00-100	Adjust the horizontal position of the picture.
	V.Position	00-100	Adjust the vertical position of the picture.

Color Setup

1



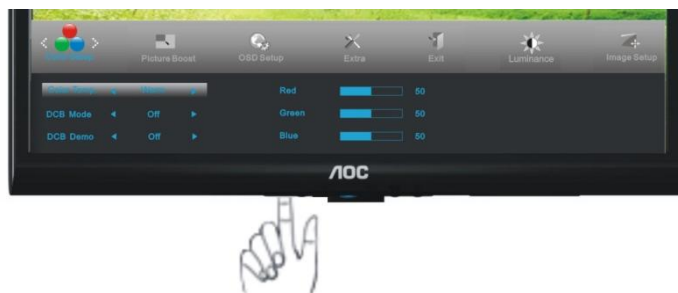
Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Color Setup), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.

4



Press **-** or **+** to adjust.



Press **AUTO** two times to exit.

	Color setup.	Warm		Recall Warm Color Temperature from EEPROM.
		Normal		Recall Normal Color Temperature from EEPROM.
		Cool		Recall Cool Color Temperature from EEPROM.
		sRGB		Recall SRGB Color Temperature from EEPROM.
		User	Red	Red Gain from Digital-register
			Green	Green Gain Digital-register.
			Blue	Blue Gain from Digital-register
	DCB Mode	Full Enhance	on or off	Disable or Enable Full Enhance Mode
		Nature Skin	on or off	Disable or Enable Nature Skin Mode
		Green Field	on or off	Disable or Enable Green Field Mode
		Sky-blue	on or off	Disable or Enable Sky-blue Mode
		AutoDetect	on or off	Disable or Enable AutoDetect Mode
	DCB Demo		On or off	Disable or Enable Demo

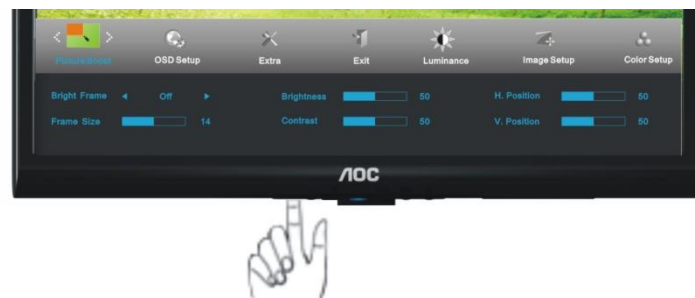
Picture Boost

1



Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Picture Boost), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.

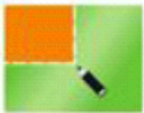
4



Press **-** or **+** to adjust.



Press **AUTO** two times to exit.

	Frame Size	14-100	Adjust Frame Size
	Brightness	00-100	Adjust Frame Brightness
	Contrast	00-100	Adjust Frame Contrast
	H. position	00-100	Adjust Frame horizontal Position
	V.position	00-100	Adjust Frame vertical Position
	Bright Frame	on or off	Disable or Enable Bright Frame

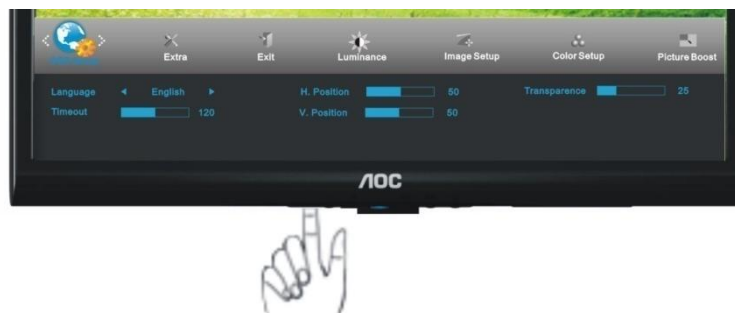
OSD Setup


1



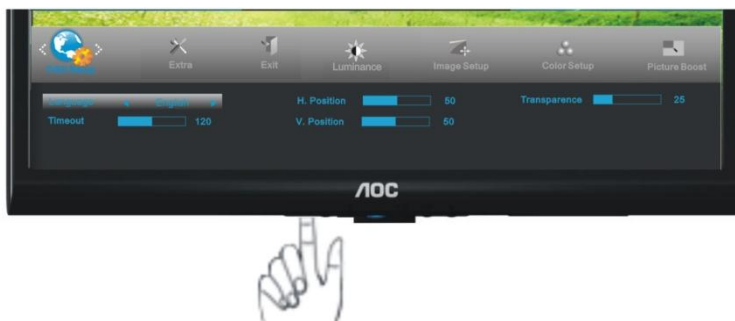
Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (OSD Setup), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.


4



Press **-** or **+** to adjust.



Press **AUTO** two times to exit.

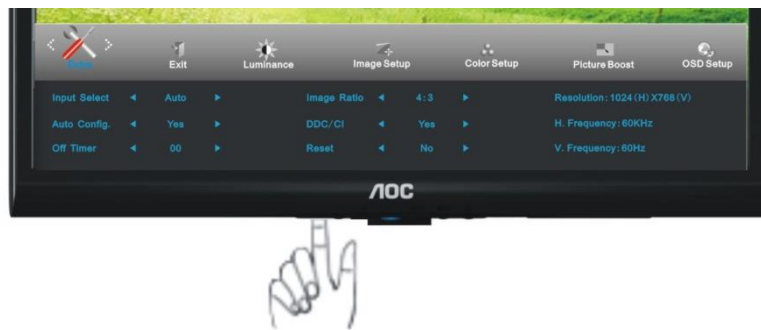
	H.Position	00-100	Adjust the horizontal position of OSD
	V.Position	00-100	Adjust the vertical position of OSD
	Timeout	05-120	Adjust the OSD Timeout
	Transparence	00-100	Adjust the transparence of OSD
	Language		Select the OSD language


Extra 1



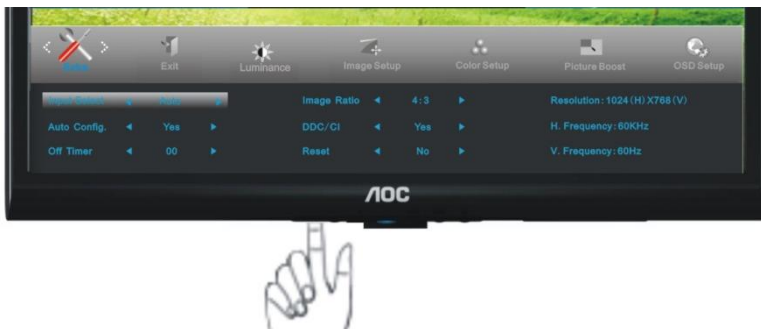
Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Extra), and press **MENU** to enter.

3



Press **-** or **+** to select submenu, and press **MENU** to enter.

4




Press **-** or **+** to adjust.

5



Press **AUTO** two times to exit.

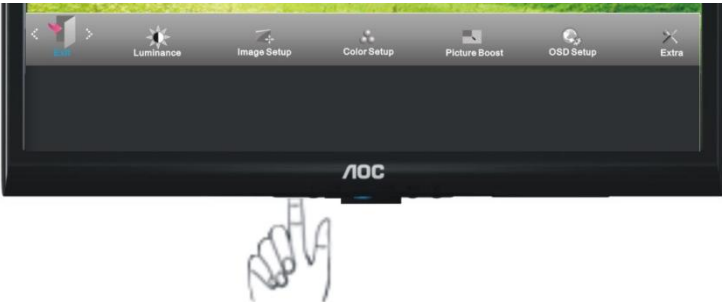
	Input Select	Auto	Select to Auto Detect input signal
		Analog	Select Analog Signal Source as Input
		DVI	Select DVI Signal Source as Input
	Auto Config	yes or no	Auto adjust the picture to default
	Off timer	00-24hrs	Select DC off time
	Image Ratio	wide or 4:3	Select wide or 4:3 format for display
	DDC-CI	yes or no	Turn ON/OFF DDC-CI Support
	Reset	Yes or no	Reset the menu to default
	Information		Show the information of the main image and sub-image source

Exit
1



Press **MENU** (Menu) to display menu.

2



Press **-** or **+** to select  (Exit), and press **MENU** to enter.



3



Press **AUTO** two times to exit

	Exit		Exit the main OSD
---	------	--	-------------------

LED Indicators

Status	LED Color	
Full Power Mode	Green or Blue	
Active-off Mode	Orange or red	

e-Saver

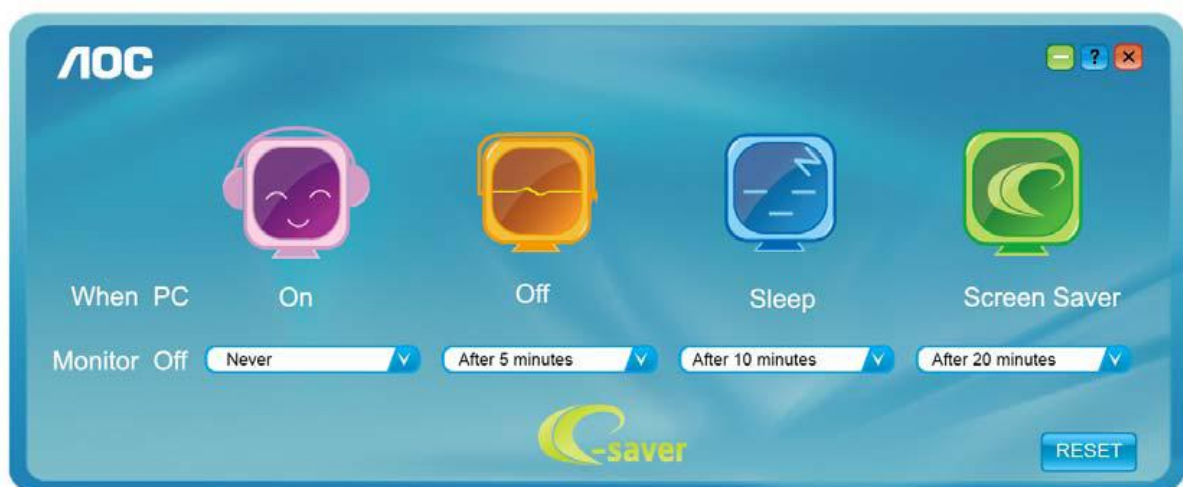


Welcome to use AOC e-Saver monitor power management software! The AOC e-Saver features Smart Shutdown functions for your monitors, allows your monitor to timely shutdown when PC unit is at any status (On, Off, Sleep or Screen Saver); the actual shutdown time depends on your preferences (see example below).

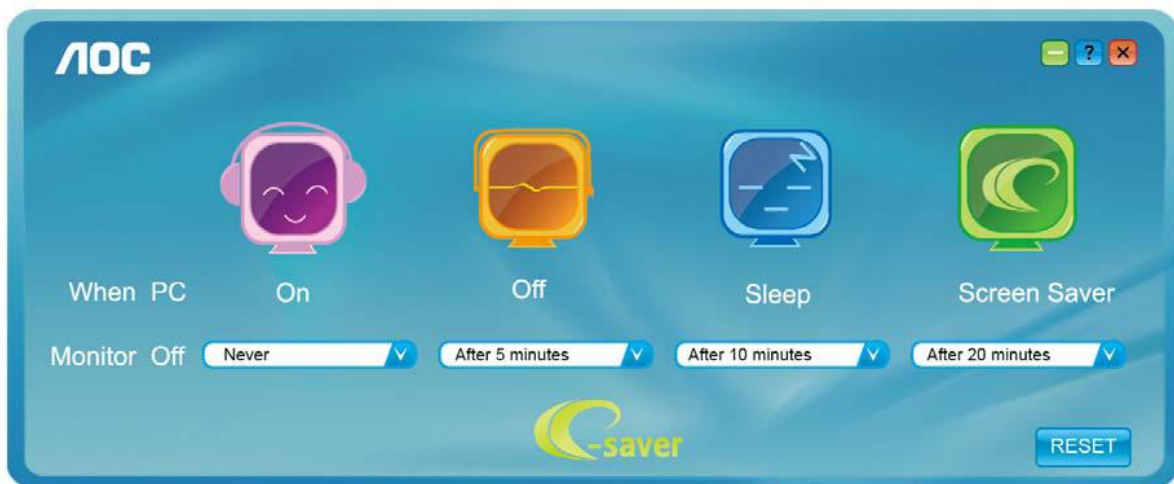
Please click on "driver/e-Saver/setup.exe" to start installing the e-Saver software, follow the install wizard to complete software installation.

Under each of the four PC status, you may choose from the pull-down menu the desired time (in minutes) for your monitor to automatically shutdown. The example above illustrated:

- 1) The monitor will never shutdown when the PC is powered on.
- 2) The monitor will automatically shutdown 5 minutes after the PC is powered off.
- 3) The monitor will automatically shutdown 10 minutes after the PC is in sleep/stand-by mode.
- 4) The monitor will automatically shutdown 20 minutes after the screen saver appears.



You can click "RESET" to set the e-Saver to its default settings like below.



Question	Answer
e-sensor no power	<ol style="list-style-type: none"> 1. Into the factory mode , set Burn in to OFF; 2. Set e-sensor to ON.
interface show e-sensor	The detecting range is too near or far and the User is far away the monitor, reset the examination area.
it can't your monitor to turn off or dark while you are away	<ol style="list-style-type: none"> 1. Please do not block the e-Sensor on the LOGO, which is located on the left of AOC logo. 2. The detecting range is too far or the things blocks monitor , reset the examination area.

Screen+

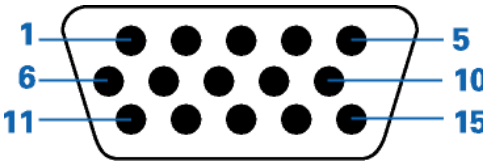


Welcome to "Screen+" software by AOC, Screen+ software is a desktop screen splitting tool, it splits the desktop into different panes, each pane displays a different window. You only need to drag the window to a corresponding pane, when you want to access it. It supports multiple monitor display to make your task easier. Please follow the installation software to install it.

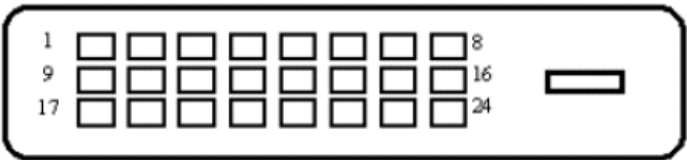


4. Input/Output Specification

4.1 Input Signal Connector



Pin Number	15-Pin Side of the Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	N.C.
5	Detect Cable
6	GND-R
7	GND-G
8	GND-B
9	+5V
10	Ground
11	N.C.
12	DDC-Serial data
13	H-sync
14	V-sync
15	DDC-Serial clock



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	TMDS Data 2-	9	TMDS Data 1-	17	TMDS Data 0-
2	TMDS Data 2+	10	TMDS Data 1+	18	TMDS Data 0+
3	TMDS Data 2/4 Shield	11	TMDS Data 1/3 Shield	19	TMDS Data 0/5 Shield
4	TMDS Data 4-	12	TMDS Data 3-	20	TMDS Data 5-
5	TMDS Data 4+	13	TMDS Data 3+	21	TMDS Data 5+
6	DDC Clock	14	+5V Power	22	TMDS Clock Shield
7	DDC Data	15	Ground(for+5V)	23	TMDS Clock +
8	N.C.	16	Hot Plug Detect	24	TMDS Clock -

4.2 Preset Display Modes

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)
VGA	640×480 @60Hz	31.469	59.940
VGA	640×480 @67Hz	35.000	66.667
VGA	640×480 @72Hz	37.861	72.809
VGA	640×480 @75Hz	37.500	75.000
Dos-mode	720×400 @70Hz	31.469	70.087
SVGA	800×600 @56Hz	35.156	56.250
SVGA	800×600 @60Hz	37.879	60.317
SVGA	800×600 @72Hz	48.077	72.188
SVGA	800×600 @75Hz	46.875	75.000
SVGA	832×624 @75Hz	49.725	74.551
XGA	1024×768 @60Hz	48.363	60.004
XGA	1024×768 @70Hz	56.476	70.069
XGA	1024×768 @75Hz	60.023	75.029
XGA	1024×768 @75Hz	60.241	74.927
***	1280×960 @60Hz	60.000	60.000
SXGA	1280×1024 @60Hz	63.981	60.02
SXGA	1280×1024 @75Hz	79.976	75.025
WXGA+	1440×900 @60Hz	55.935	59.887
WSXGA	1680×1050 @60Hz	65.290	59.954
HD	1920×1080@60Hz	67.500	60.000

4.3 Panel Specification

4.3.1 General Features

TPM236WU-110 is a color active matrix TFT LCD module using amorphous silicon TFT's(Thin Film Transistors) as an active switching devices. This module has a 23.6 inch diagonally measured active area with FHD resolutions (1920 horizontal by 1080 vertical pixel array). Each pixel is divided into RED, GREEN, BLUE dots which are arranged in vertical stripe and this module can display 16.7M colors. The TFT-LCD panel used for this module is adapted for a low reflection and higher color type.

4.3.2 General Specifications

Item	Specification	Unit
Active Area	521.28(H) × 293.22(V)	mm
Bezel Opening Area	525.22 (H) x 297.5 (V)	mm
Driver Element	a-si TFT active matrix	-
Pixel Number	1920(H) × 1080(V)	pixel
Pixel Pitch	0.2715(H) × 0.2715(V)	mm
Pixel Arrangement	RGB vertical stripe	-
Display Colors	16.7M	color
Transmissive Mode	Normally White	-
Color saturation	72%NTSC (Typ.)	-
Surface Treatment	Hard coating (3H), Anti-glare (Haze 25)	-
Module Power Consumption	16.79 (Typ.)	Watt
Pressure Force Test	3.5	Kgf

Item		Min.	Typ.	Max.	Unit
Module Size	Horizontal(H)	544.3	544.8	545.3	mm
	Vertical(V)	320	320.5	321	mm
	Depth(D)	9.1	9.6	10.1	mm
Weight		-	2150	--	g

4.3.3 Electrical Characteristics

Electrical characteristics

Ta = 25± 2 °C

Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	VDD	4.5	5.0	5.5	V	(1)
Ripple Voltage	VRP	-	-	300	mV	VDD=5.0V
Power on Rush Current	IRUSH	-	2	3	A	(2)
Power Supply Current	IDD	-	900	1100	mA	(1)
Power consumption	Plcd	-	4.5	5.5	Watt	
LVDS differential input voltage	Vid	200	-	600	mV	
LVDS common input voltage	Vic	1.0	1.2	1.5	V	
Logic High input voltage	VIH	-	-	+100	mV	
Logic Low input voltage	VIL	-100	-	-	mV	

Notes :

1. The supply voltage is measured and specified at the interface connector of LCM. The current draw and power consumption specified is for VDD=5.0V, Frame rate=75Hz Clock frequency = 92.9 MHz. Test Pattern of power supply current

2. Duration of rush current is about 2 ms and rising time of VDD is $520 \mu s \pm 20 \%$

LED array electrical characteristics

$T_a = 25 \pm 2^\circ C$

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Light Bar Input Voltage	V_{LED}	43.6	51.2	58.8	V _{DC}
Light Bar Input Current	I_{pin}	--	60	63	mA _{DC}
Power Consumption	P_{LED}	--	12.29	14.31	W
LED Life Time	L_{BL}	30000	--	--	Hrs
IFP LED Peak forward current	I_{LED}	--	--	180	mA _{DC}

Note

(1) LED light bar input voltage and current are measured by utilizing a true RMS multimeter as shown below:

(2) $PBL = IPIN \times VPIN \times (8)$ input pins, LED light bar circuit is (9) Series, (8) Parallel.

(3) The lifetime of LED is defined as the time when LED packages continue to operate under the conditions at $T_a = 25 \pm 2^\circ C$ and $I = (25) mA$ (per chip) until the brightness becomes $\leq 50\%$ of its original value.

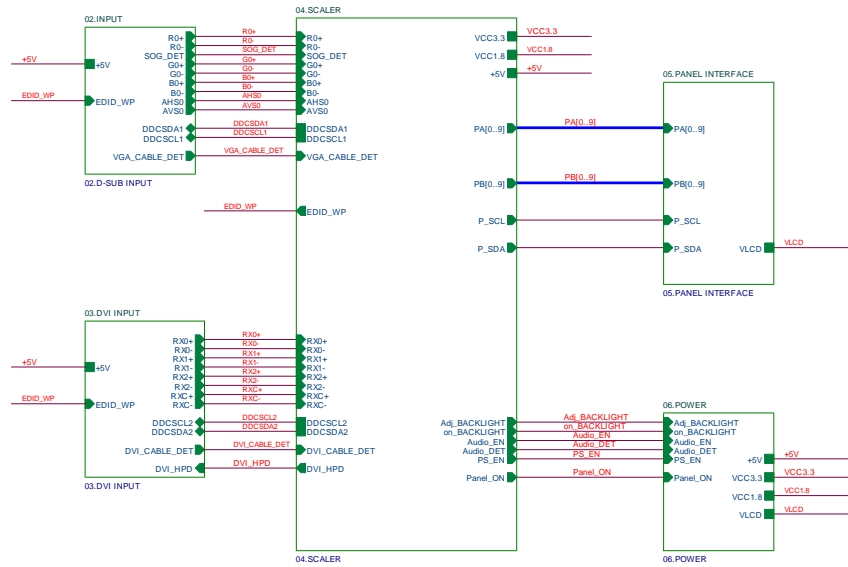
4.3.4 Optical Characteristics

$T_a = 25^\circ C$,

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Color Chromaticity (CIE 1931)	Red	R _x	$\theta_x=0^\circ, \theta_Y=0^\circ$ CS-1000T R=G=B=255 Grayscale	Typ – 0.03	0.641	Typ + 0.03	
		R _y			0.338		
	Green	G _x			0.311		
		G _y			0.619		
	Blue	B _x			0.159		
		B _y			0.059		
	White	W _x		Typ – 0.03	0.313	Typ + 0.03	
		W _y			0.329		
Center Luminance of White (Center of Screen)		L _C		200	250	---	cd/m ²
Contrast Ratio		CR		700	1000	---	-
Response Time		T _R	$\theta_x=0^\circ, \theta_Y=0^\circ$	---	1.5	2.5	ms
		T _F		---	3.5	5.5	ms
White Variation		δW	$\theta_x=0^\circ, \theta_Y=0^\circ$ USB2000	---	1.25	1.33	-
Viewing Angle	Horizontal	θ _{x+}	CR > 10 USB2000	75	85	---	Deg.
		θ _{x-}		75	85	---	
	Vertical	θ _{y+}		70	80	---	
		θ _{y-}		70	80	---	
Viewing Angle	Horizontal	θ _{x+}	CR ≥ 5 USB2000	80	89	---	Deg.
		θ _{x-}		80	89	---	
	Vertical	θ _{y+}		75	85	---	
		θ _{y-}		75	85	---	

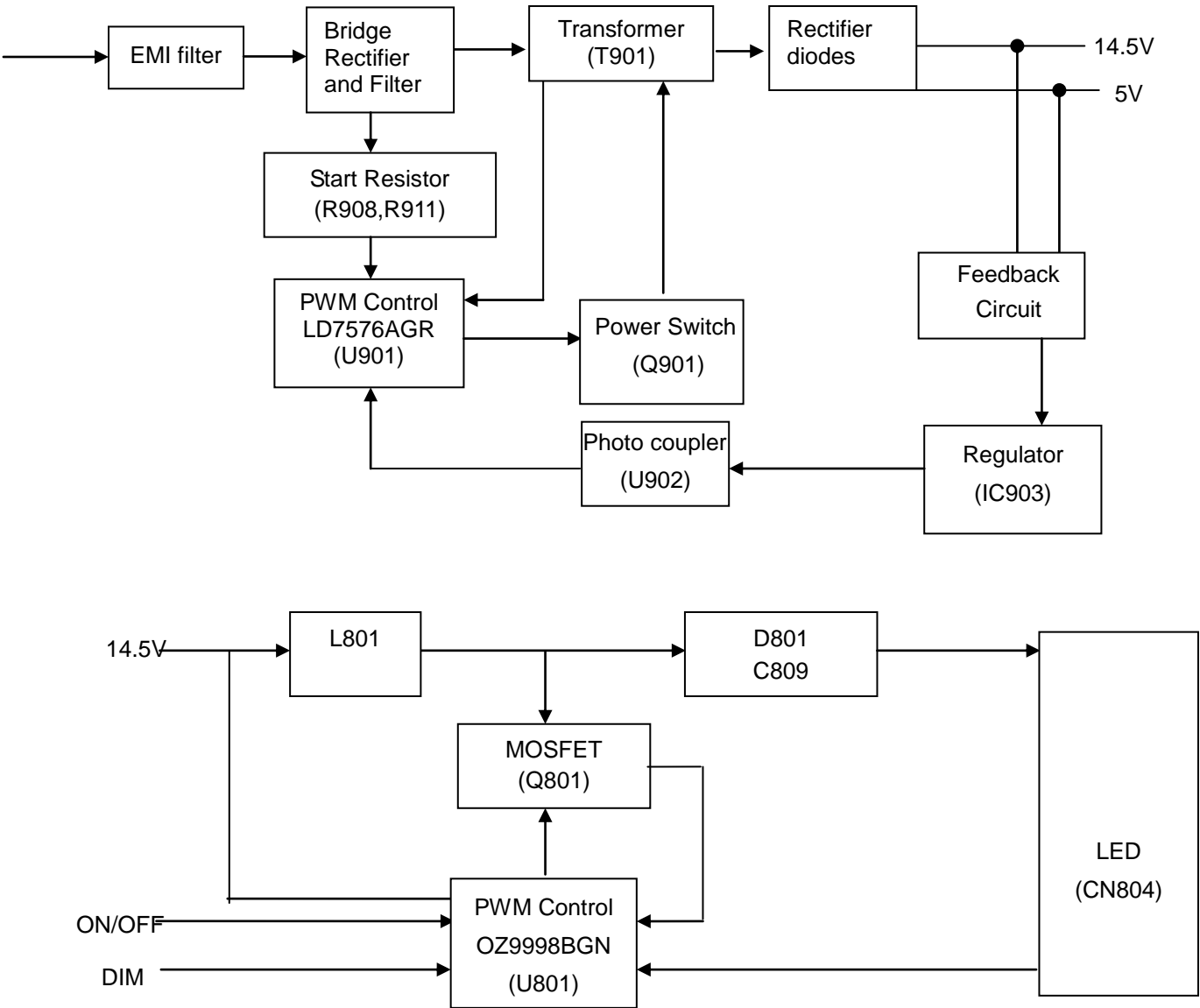
5. Block Diagram

5.1 Main Board

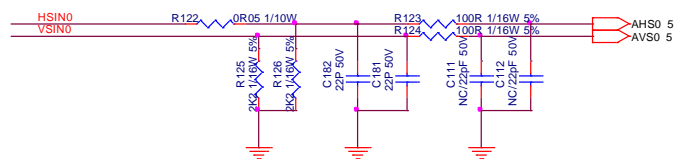


T.P.V. (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS	Size	B
715G4502-M0B-000-0040	TPV MODEL	DUAL	Rev	B
COVER & REVISE HISTORY	PCB NAME	715G4502-M0B-000-0040	修 改	<修 改>
Date	Friday, October 29, 2010	Sheet	2 of 7	

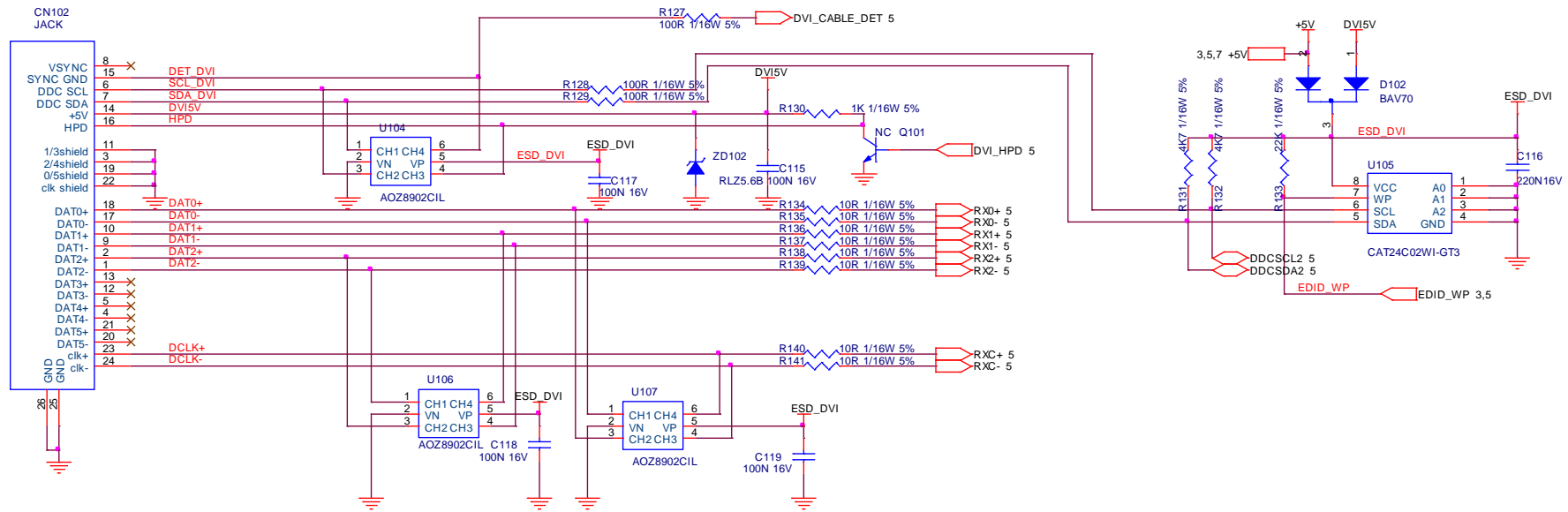
5.2 Power Board



715G4502M01000004C



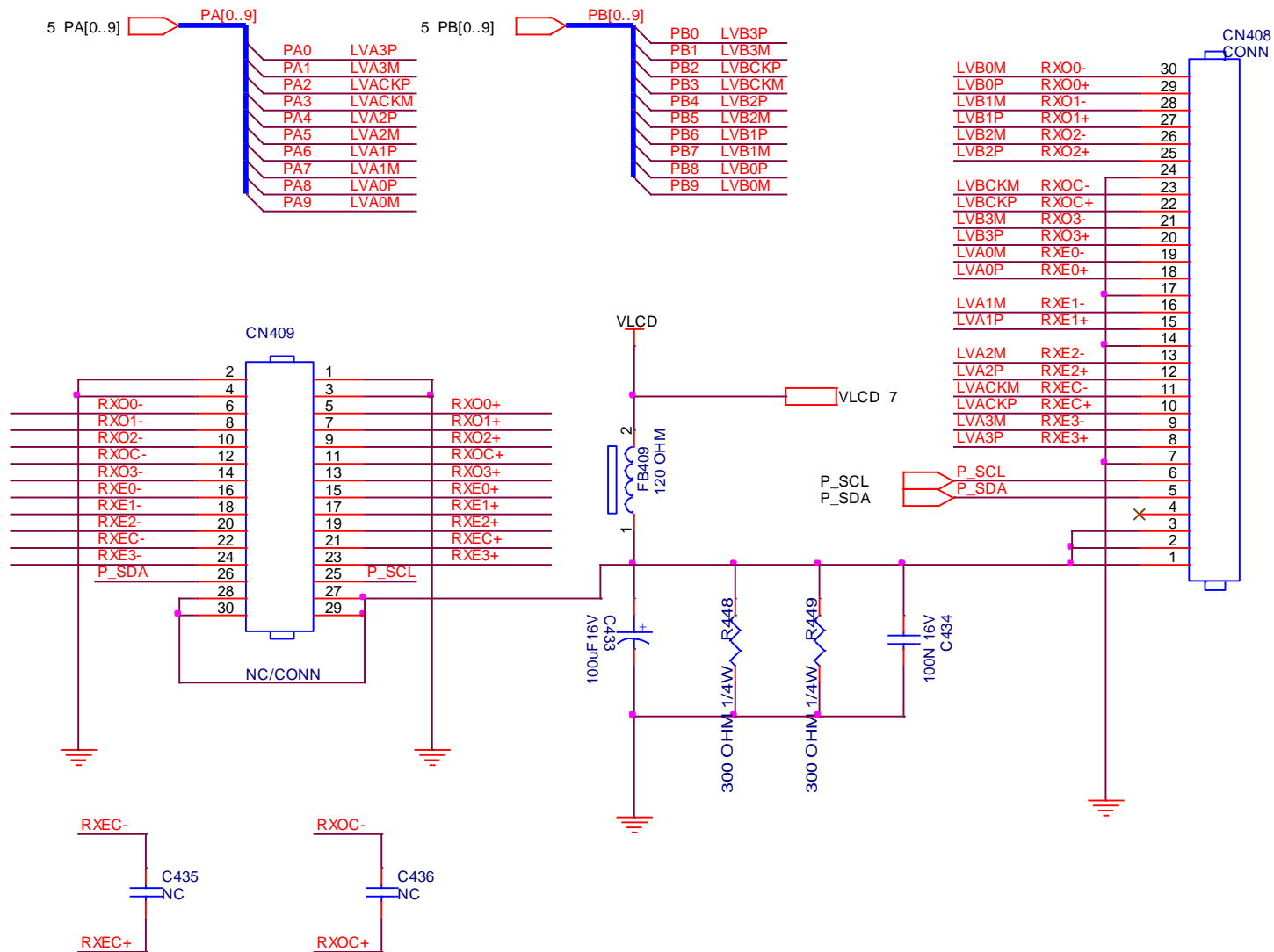
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	OTS	Size	B
715G4502-M0B-000-0040		TPV MODEL	DUAL	Rev	B
Key Component	D-SUB I/O	PCB NAME	715G4502-M0B-000-0040	稱號	<稱號>
Date	Friday, October 29, 2010	Sheet	3 of 7		



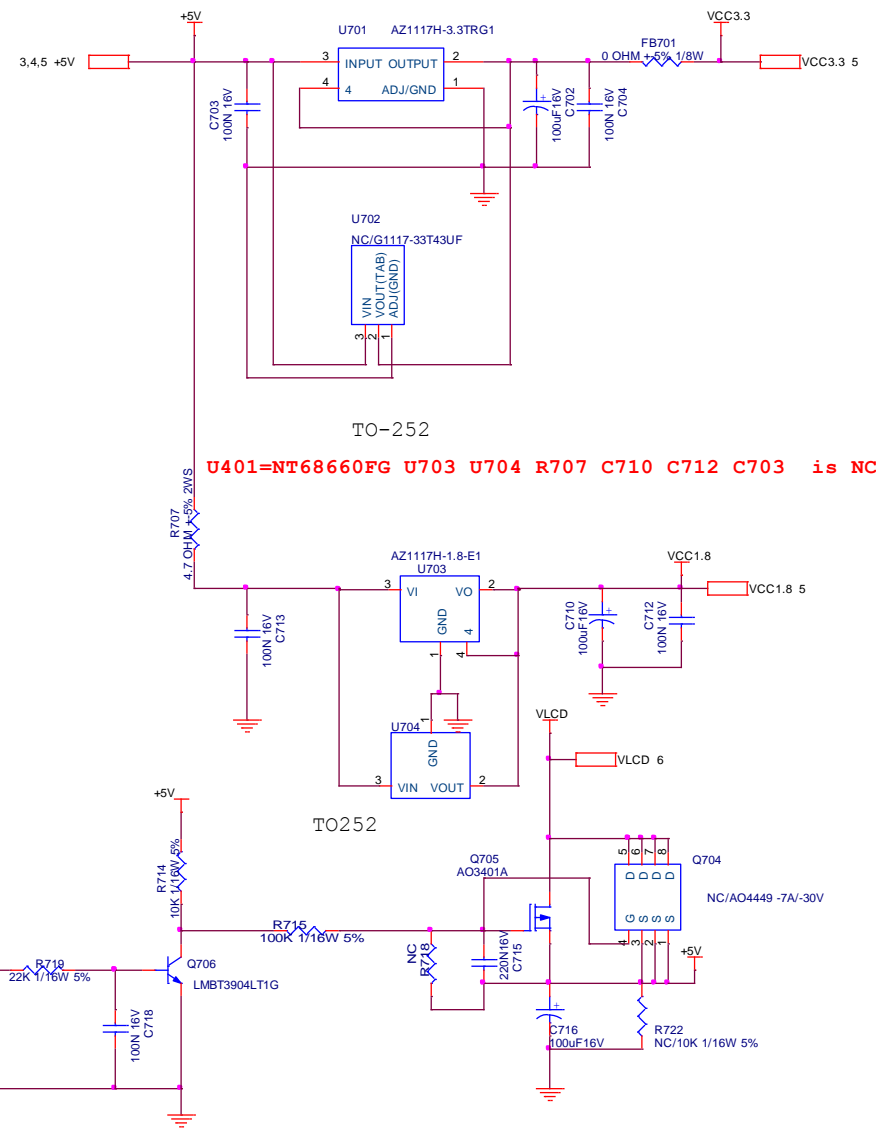
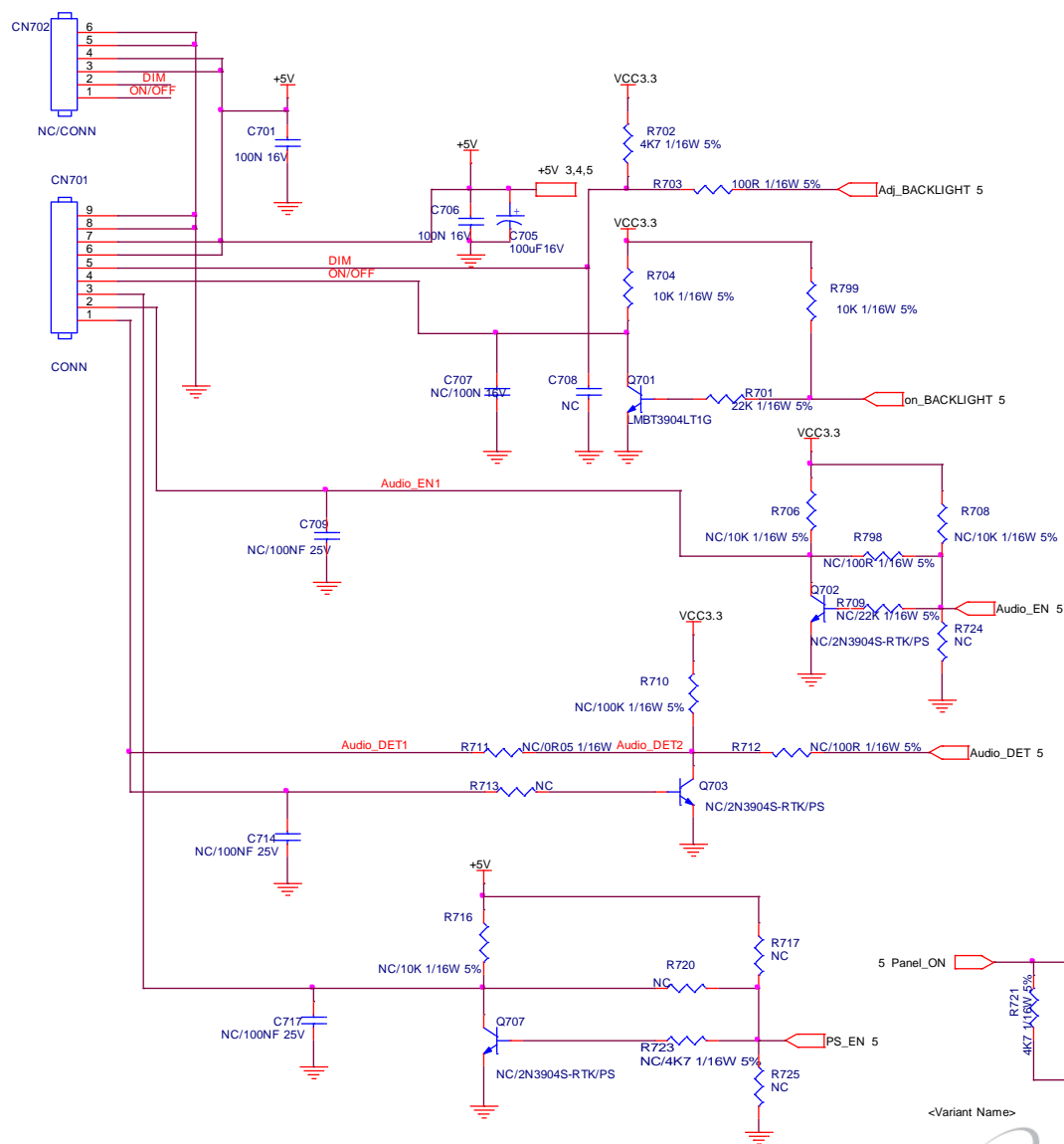
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS	Size	B
結構瓜網腹	715G4502-M0B-000-0040	TPV MODEL	DUAL	Rev
Key Component	DVI	PCB NAME	715G4502-M0B-000-0040	稱重
Date	Monday, November 01, 2010	Sheet	4 of 7	<稱重>



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS	Size	C
715G4502-MOB-000-0040	TPV MODEL	DUAL	Rev	B
SCALAR	PCB NAME	715G4502-MOB-000-0040	修 改	《修 改》
Date	Monday Nov ember 01, 2010	Sheet	5	of 7



TPV (Top Victory Electronics Co., Ltd.)				OEM MODEL	OTS	Size	A
結隔瓜網腹	715G4502-M0B-000-0040	TPV MODEL	DUAL	Rev	B		
Key Component	LVDS PANEL I/O	PCB NAME	715G4502-M0B-000-0040	称爹	<称爹>		
Date	Friday, October 29, 2010	Sheet	6 of 7				



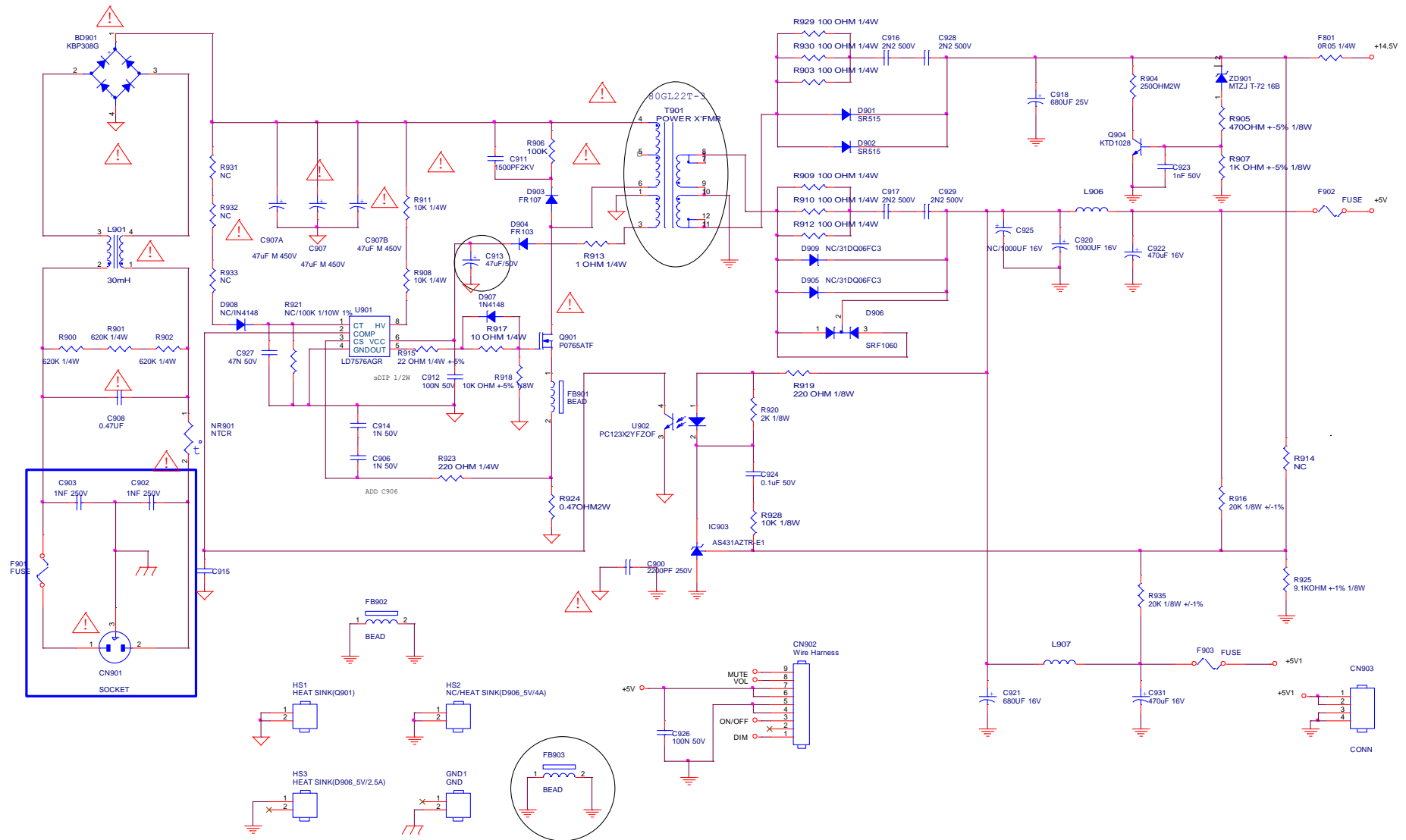
<Variant Name>




TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	QTS	Size	B
715G4502-M0B-000-0040	TPV MODEL	DUAL	Rev	A
Key Component	POWER	PCB NAME	715G4502-M0B-000-0040	称家
Date	Friday, October 29, 2010	Sheet	7 of 7	<路多>

6.2 Power Board

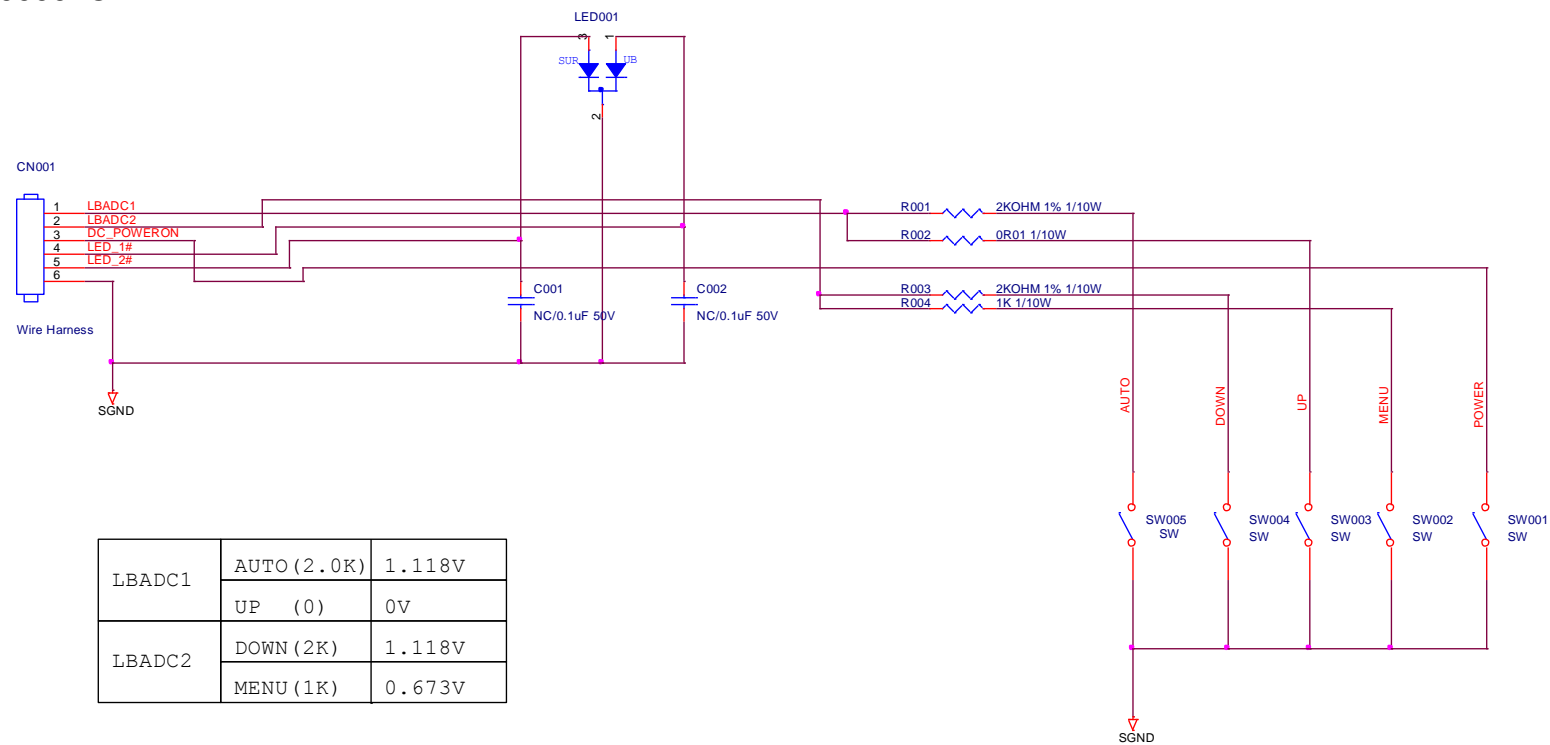
715G4744P02000001M



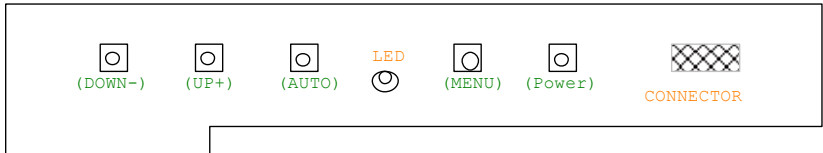
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	HP W2072a W2052a CMI	Size	Custom
 冠捷集團 Key Component	G744-P01-002-0030-6-111012	TPV MODEL	PLPCBA311MH1A1	Rev	1.0
	03 POWER	PCB NAME	715G4744-P01-002-0030	修多	ODM MODEL
	Date	Wednesday, October 12, 2011	Sheet		

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6.3 Key Board
715G4747K02000001C



LBADC1	AUTO (2.0K)	1.118V
	UP (0)	0V
LBADC2	DOWN (2K)	1.118V
	MENU (1K)	0.673V

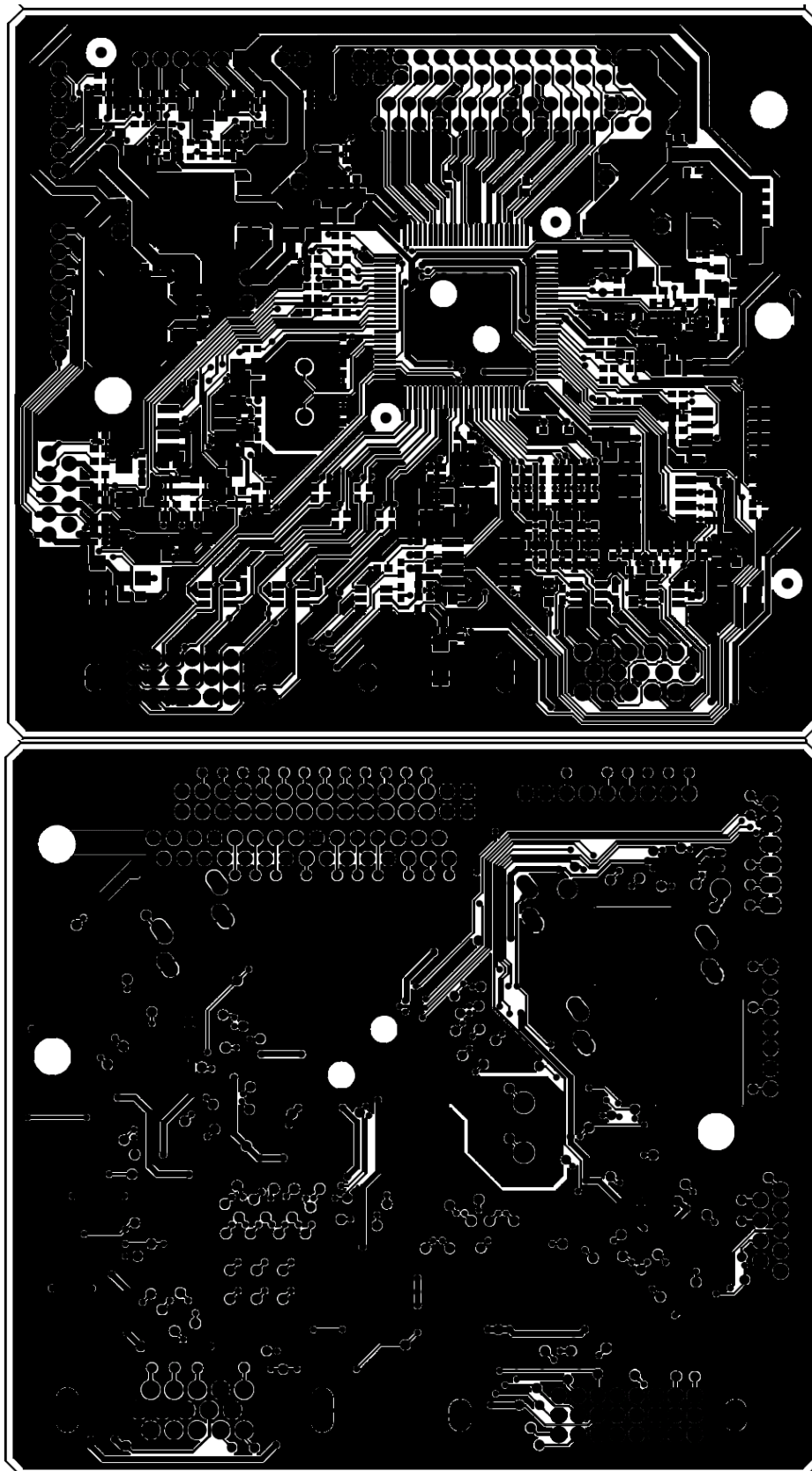


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	N/A	Size	B
结构瓜網膜	G4747-K0B-000-0040-101026	TPV MODEL	e950Sw	Rev
Key Component	2.0.key	PCB NAME	715G4747	称爹
Date	Tuesday, November 02, 2010	Sheet	2 of 2	<称爹>

7. PCB Layout

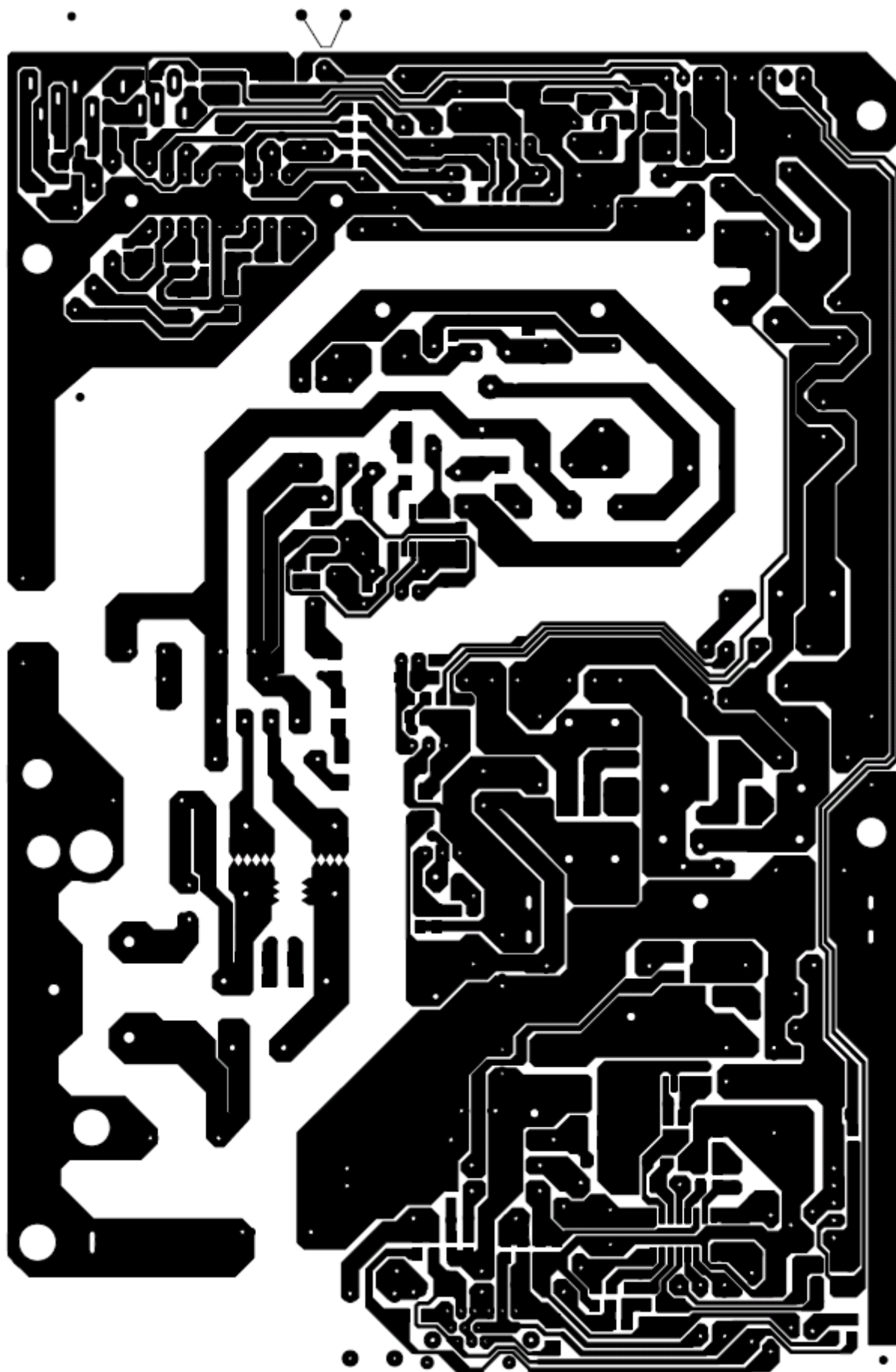
7.1 Main Board

715G4502M01000004I

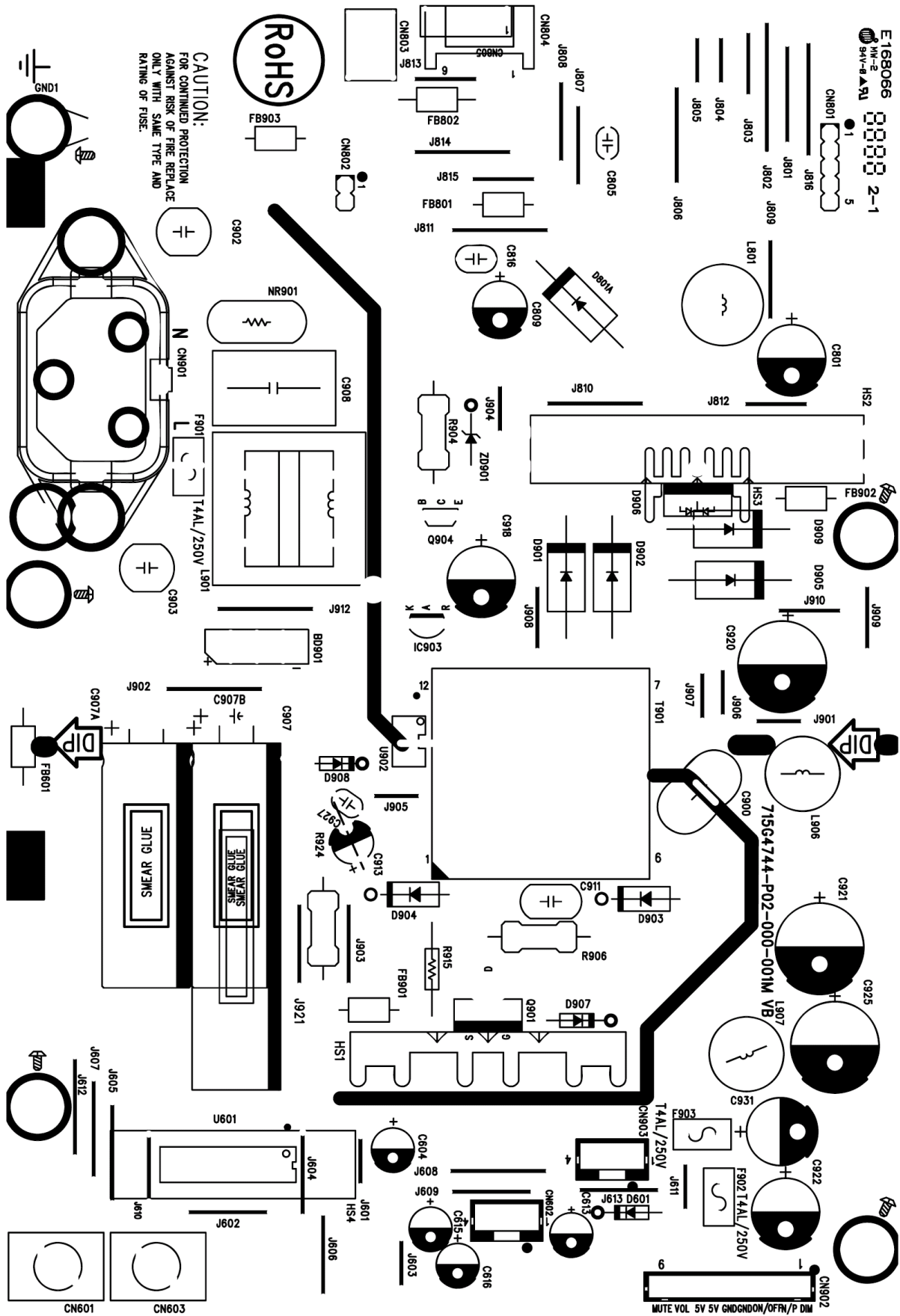




7.2 Power Board
715G4744P02000001M

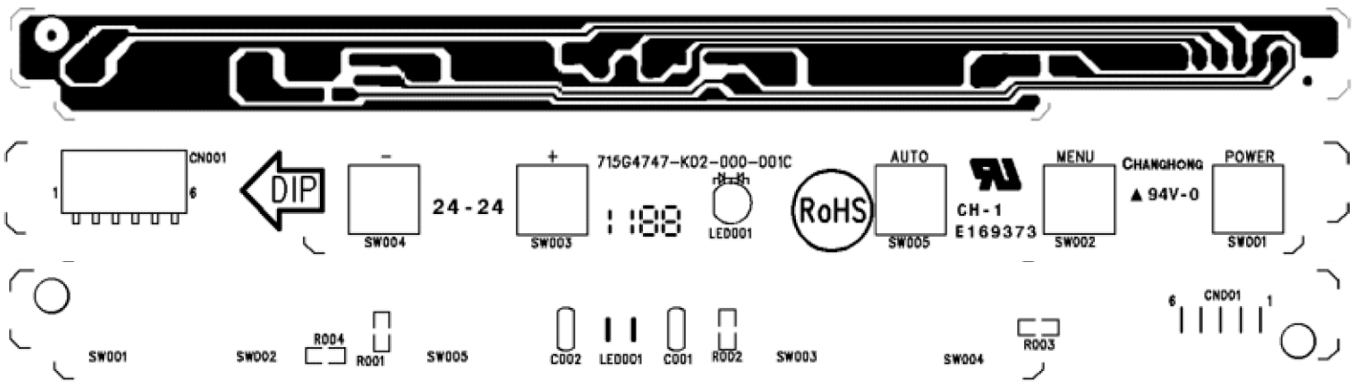


AI LABEL POSITION



7.3 Key Board

715G4747K02000001C



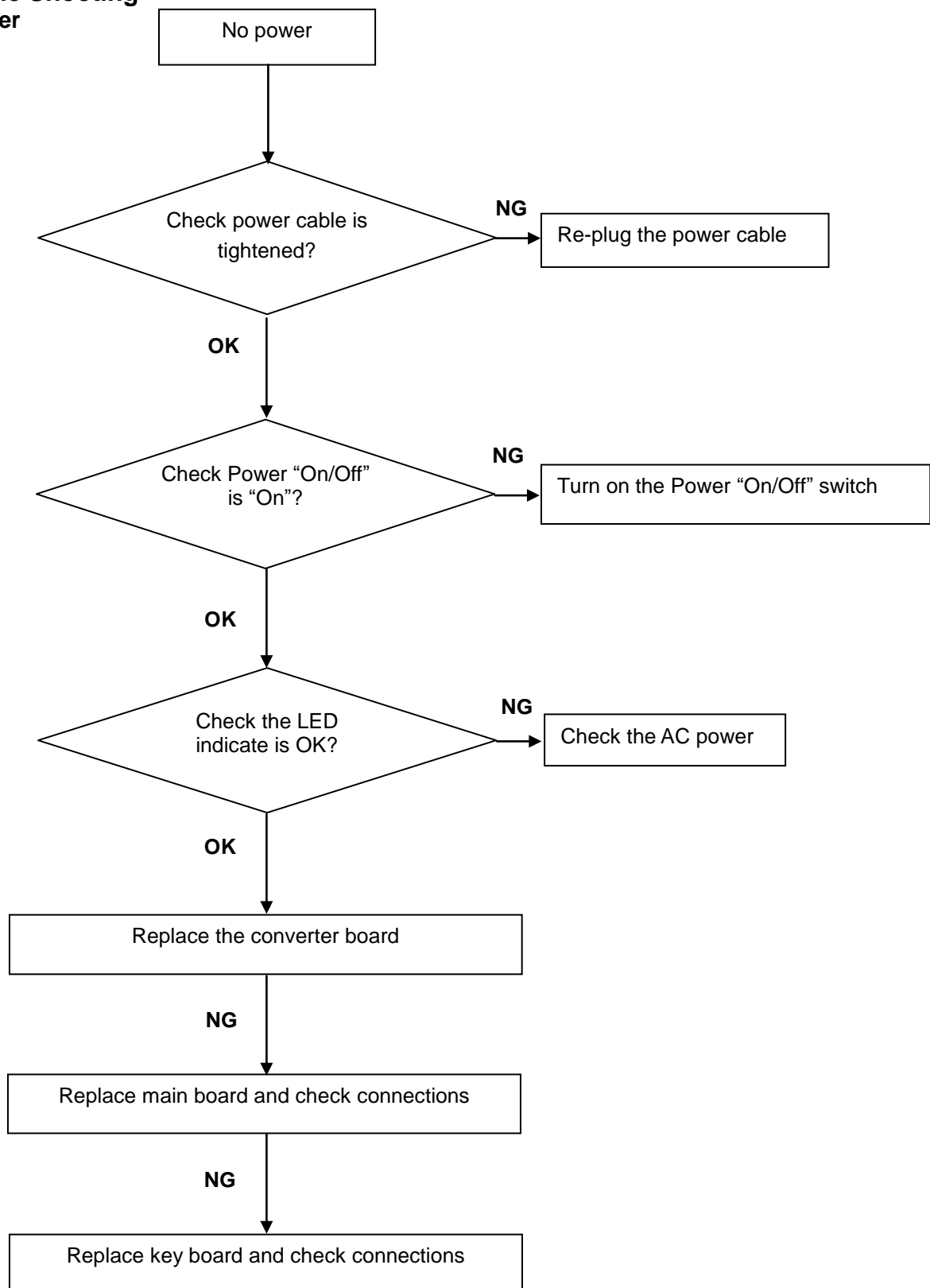
8. Maintainability

8.1 Equipments and Tools Requirement

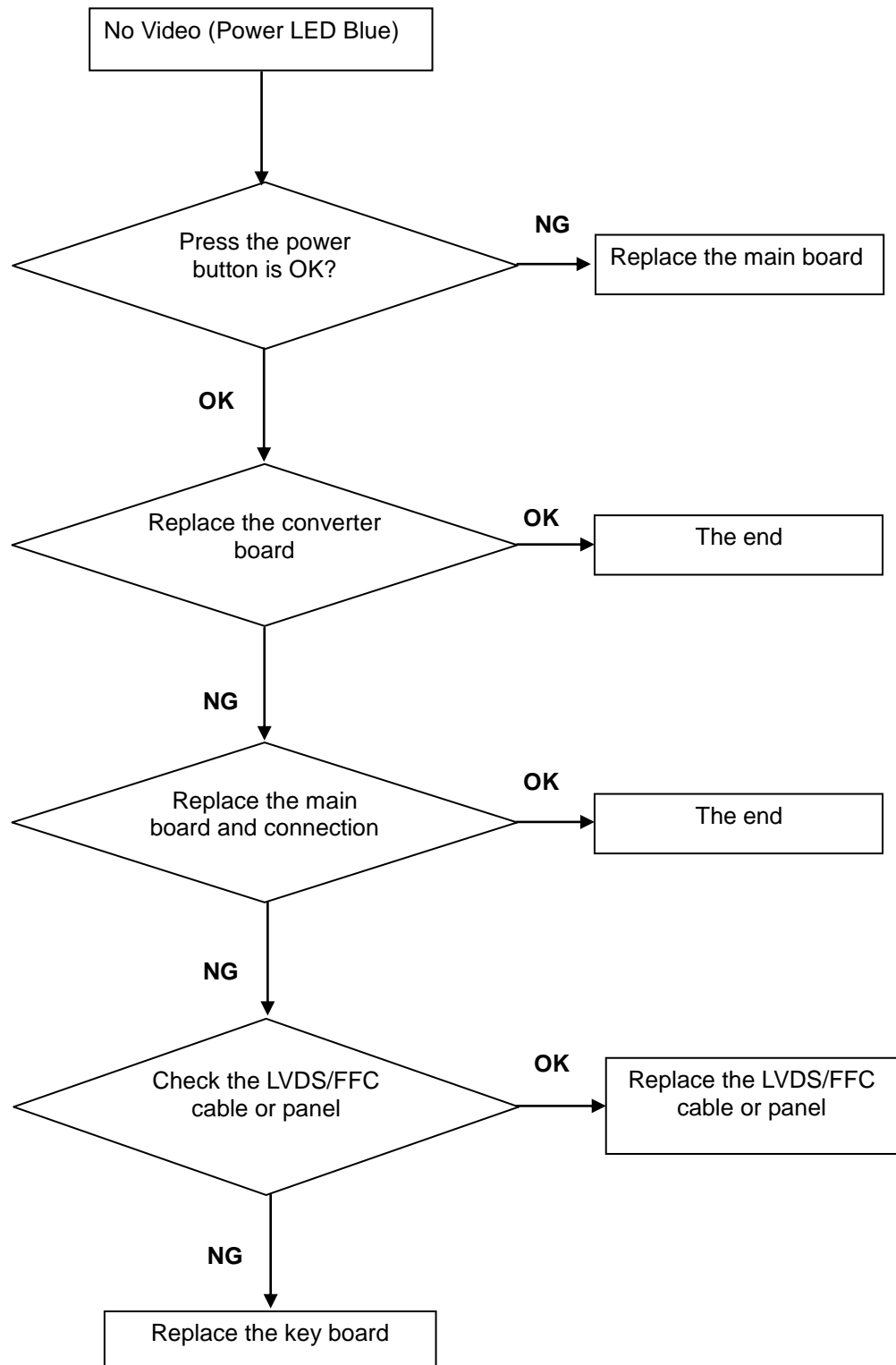
1. Voltmeter.
2. Oscilloscope.
3. Pattern Generator.
4. DDC Tool with an IBM Compatible Computer.
5. Alignment Tool.
6. LCD Color Analyzer.
7. Service Manual.
8. User Manual.

8.2 Trouble Shooting

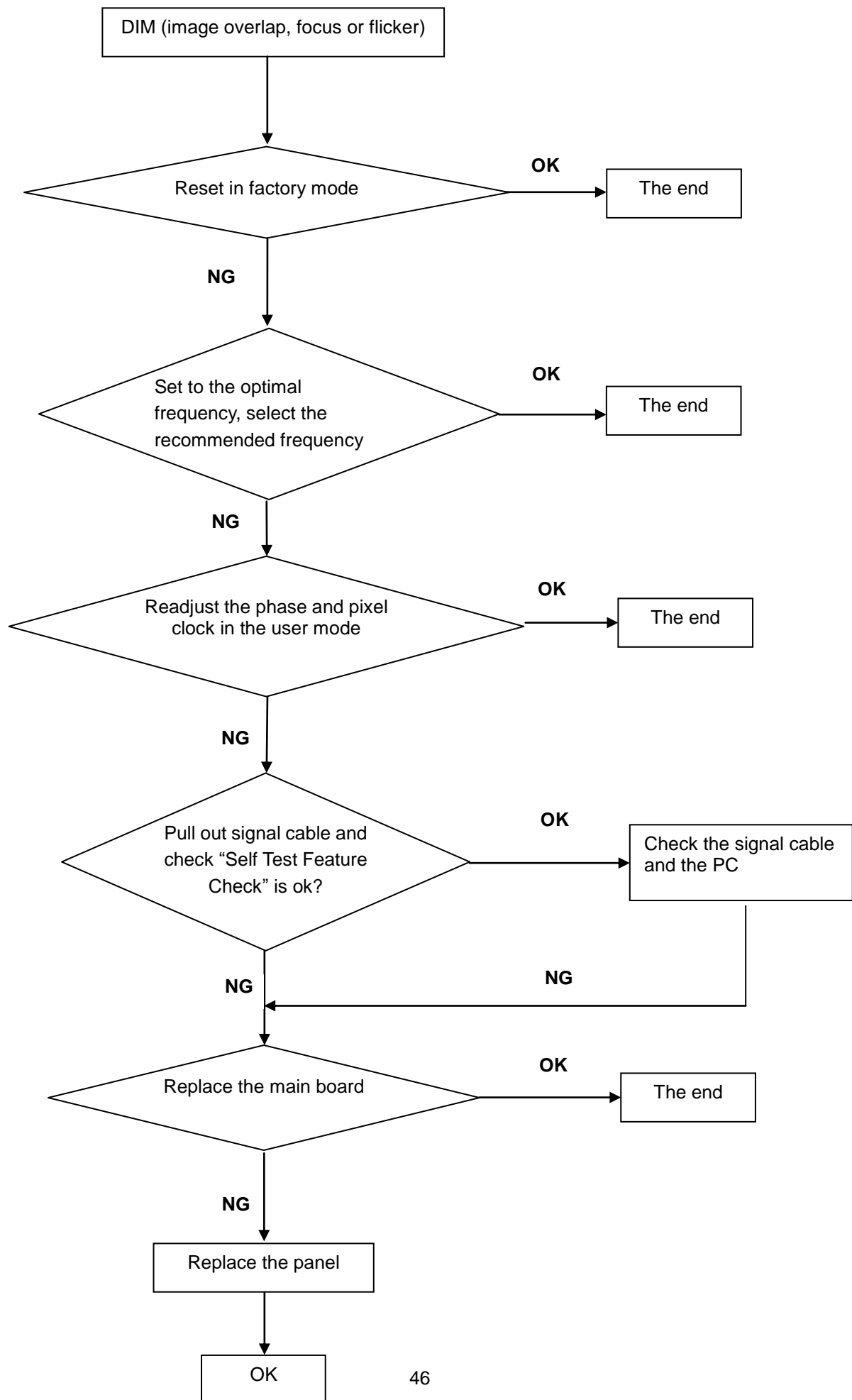
1. No Power



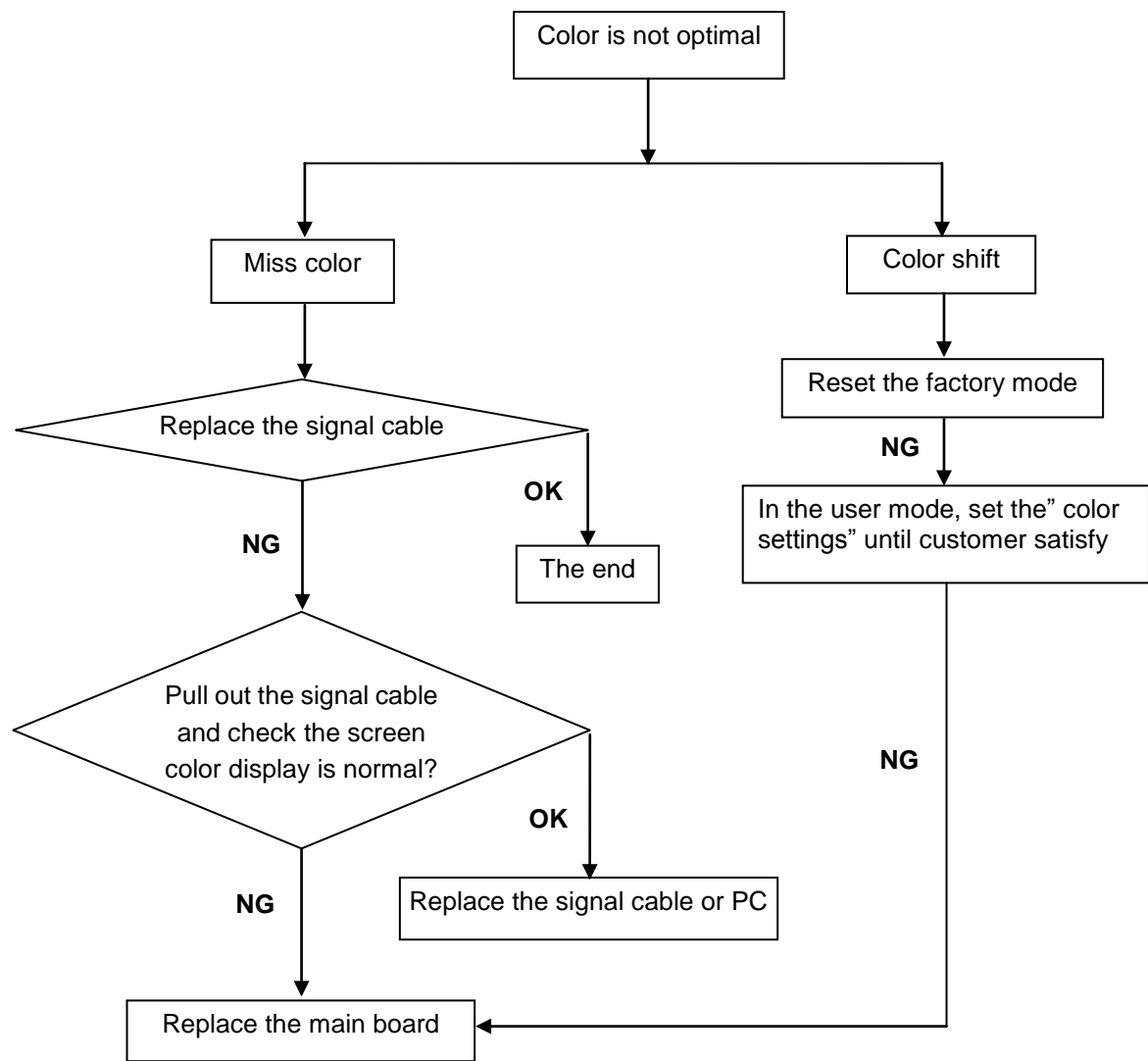
2. No Video (Power LED Blue)



3. DIM



4. Color is not optimal



9.White- Balance, Luminance Adjustment

Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment.

How to setting MEM channel you can reference to chroma 7120 user guide or simple use “SC” key and “NEXT” Key to modify xyY value and use “ID” key to modify the TEXT description Following is the procedure to do white-balance adjust .

1. Setting the color temp.

A. 6500K:

Warm color temp. parameter is $x=313\pm20$, $y=329\pm20$

B. 7300K

Normal color temp. parameter is $x=301\pm20$, $y=317\pm20$

C. 9300K

Cool color temp. parameter is $x=283\pm20$, $y=297\pm20$

D. sRGB

sRGB color temp. parameter is $x=313\pm20$, $y=329\pm20$

2. Enter into the factory mode:

Press the MENU button, Pull out the power cord, then plug the power cord. Then the factory OSD will be at the left top of the panel.

3. Biase adjustment:

Set the Contrast  to 50; Adjust the Brightness  to 90.

4. Gain adjustment:

A. Adjust Warm (6500K) color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press “MODE” button)
2. Switch the MEM.channel to Channel 3 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show $x=313\pm20$, $y=329\pm20$
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance $=100\pm2$

B. Adjust Normal (7300K) color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press “MODE” button)
2. Switch the MEM.channel to Channel 4 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show $x=301\pm20$, $y=317\pm20$
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance $=100\pm2$

C. Adjust Cool (9300K) color-temperature

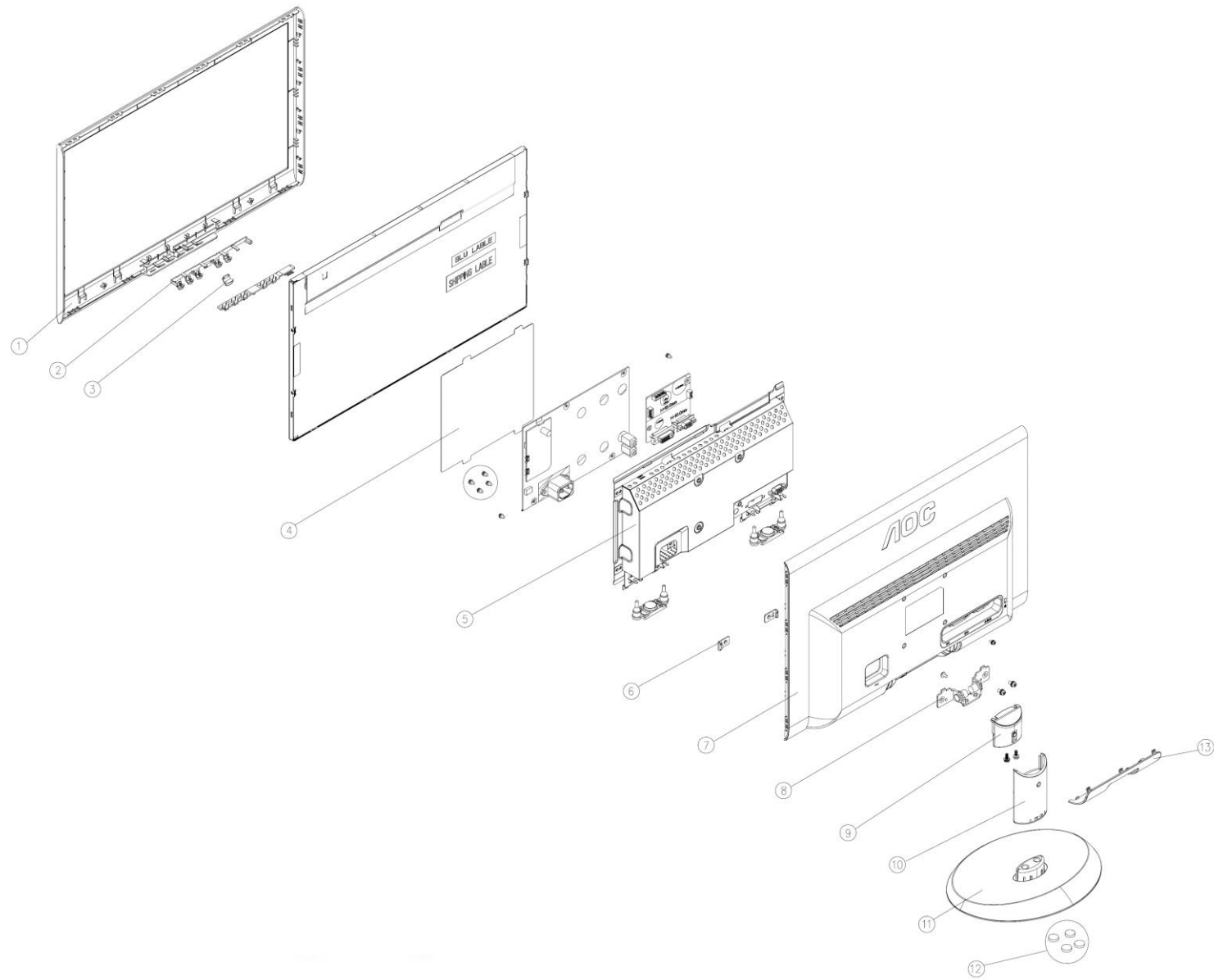
1. Switch the Chroma-7120 to RGB-Mode (with press "MODE" button)
2. Switch the MEM. Channel to Channel 9 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show $x=283\pm20$, $y=297\pm20$
4. Adjust the RED on factory window until chroma 7120 indicator reached the value $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value $B=100$
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance $=100\pm2$

D. Adjust sRGB color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press "MODE" button)
2. Switch the MEM.channel to Channel 10 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show $x=313\pm20$, $y=329\pm20$
4. Adjust the RED on factory window until chroma 7120 indicator reached the value $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value $B=100$
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance $=100\pm2$

E. Turn the Power-button off to quit from factory mode.

10. Monitor Exploded Views



11. BOM List

Note: The parts information listed below are for reference only, and are subject to change without notice. Please go to <http://cs.tpv.com.cn/hello1.asp> for the latest information.

TDC2N26BAHA1DNE

Location	Part No.	Description	Remark
	040G 58162435A	MANUAL P/N LABEL	
	052G 2191 A	PAPER TAPE	
HDCP-SMT	070GHDCP500HDC	HDCP CODE	
E07801	078G025AE01 V	SPEAKER 4 OHM 2.5W 40*20 190+330	
E08904	089G 17356G580	AUDIO CABLE 1.8M without PE bag	
E08902	089G 728HAA DB	D-SUB CABLE 1800mm	
E08903	089G1748HAA AC	DVI CABLE 1800MM	
E08901	089G404A18N HL	AC POWER CORD 1800 for Europe	
ECN804	095G8014 6TE45	HARNESS 6P(CI1406)--6P(2008) 140	
	0D1G1030 6120	screw	
	0M1G 930 8 47 CR3	SCREW 3x8	
	0M1G1140 8120	SCREW 4x8	
	0Q1G 140 12120	SCREW 4X12	
	0Q1G 330 10120	SCREW FOR FP/RC 42-D003792	
E750	750GBV236W3111N000	LCD TPM236H3-WU3100 4830 FQ TPV	
E750	750GBV236W3121N000	LCD TPM236H3-WU3100 4940 FQ TPV	2nd source
	A15G1587101	BKT_HINGE	
	A15G1597401502	MAINFRAME	
	A33G1181ABJ 1L0100	KEY	
	A33G1182 1 1L0100	LENS_POWER	
	A34G2558AEDT2B0104	BEZEL	
	A34G2559ABJ0EK0100	REAR_COVER	
	AM1G1740 10125	SCREW	
	AM1G1740 12125	SCREW	
	H37G0026012	HINGE	
	H40G 001624 1A	CARTON LABEL BARCODE 1	
	H40G 45762413B	P/N LABEL FOR BASE	
	H40G020N61544F	RATING LABEL 50* EU	
	H44GD015101	CUSHION	
	H44GD015201	CUSHION	
	H44GD015615 2B	ARTWORK CARTON	
	H45G9901 18 20	EPE COVER	
	H52G1801 16006	insulating sheet	
	H70G24C161501D	CD MANUAL CD MANUAL e2450Swda WH	
	KEPCA HB5	KEY BOARD	
	PLPCBD591AHE1	POWER BOARD	
	Q33G0504ABJ 1B0100	STAND_TOP	
	Q33G0505ABJ 1L0100	COVER_HINGE	
	Q34G7395ABJ 1B0100	STAND	
	Q34G7396AED 1B0130	BASE	
	Q45G 76 28 H A	PROTECT BAG	
	Q52G 1185 99	BIG CARTON TAPE FOR AOC 72MM	
M05201	Q52G100202500A00JY	AL FOIL	
M05203	Q52G100204500A00JY	AL FOIL	
M05202	Q52G100204500A00JY	AL FOIL	
	Q52G6019 14	TAPE	

E09501	S95G179T30PE38	FFC CABLE 30P 215mm 1.0MM	
	H40G000261553A	TCO'05 EPA LABEL	
	756GHBCB A5061	MAIN BOARD-CBPCAN2A1H3	
U402	056G2233 11	FLASH Pm25LD020C-SCE 2M SIOC-8	
SMTCA-U402	100GANMD009W11	MCU ASS'Y-056G2233 11	
CN402	033G3802 6B Y L	WAFER	
CN701	033G3802 9B Y L	CONN 2.0 9P	
CN408	033G801930F CH L	FFC CONN 1.0mm 30P R/A 34mm 6mm	
R707	061G152M47964L SY	RST MOFR 4.7 OHM +-5% 2WS FUTABA	
CN101	088G 35315FVXH	D-SUB CONN V/T 15P BLUE 1*1 V/T 30.8	
CN102	088G 35424FVXH	DVI CONN V/T 24P WHITE	
X401	093G 2251BCEC	CRYSTAL S-F-12.000M-30-3030-2085-25	
	709G4502 HM001	COMSUPTIVE ASS'Y	
	H40G 45762429A	LABEL	
LED001	081G 12 1F GH	LED GREEN/YELLOW GHZYG603D2-5B	
CN001	095G820H 6TE10	HARNESS 6P(SANW)-6P(2008) 120	
	709G4747 HM001	COMSUPTIVE ASS'Y	
GND1	009G6005 1	GND TERMINAL	
CN602	033G3802 4B Y L	CONNECTOR 4P 2.0	
U902	056G 139 9	IC EL817M(X) photocoupler DIP-4	
U601	056G 616 85	AUDIO APA2603JI-TUG 3W DIP-16	
NR901	061G 5810X	NTCR 8R 20% 4W 8D2-14 MCS	
C908	063G107K474 6S	0.47UF +-10%	
C900	065G306M2222BP	CAP Y1 2.2NF 20% 250V Y5P	
C907	067G 40Z47015H	EC 47UF 20% 450V 13*36	
C907A	067G 40Z47015H	EC 47UF 20% 450V 13*36	
C809	067G 415330 9K	EC 33UF 20% 100V ED 8*12	
C921	067G 4156814KV	EC 680UF 20% 25V EP 12.5*12	
C931	067G215P4713AV	CAP 105C 470UF M 16V	
C922	067G215P4713AV	CAP 105C 470UF M 16V	
C918	067G215P6814AV	EC 680UF 20% 25V RS 10*20	
L901	073G 174 65 H2	LINE FILTER 30mH MIN	
L907	073G 253191 H	IND CHOKE 1.1uH DADON	
L906	073G 253191 H	IND CHOKE 1.1uH DADON	
L801	073G 253214 DN	CHOKE COIL 47UH 10% LZ.CC013.G01 2.5A	
T901	080GL22T 3 S3	X'FMR 490UH 7% 4UH BCK-ER28-22210	
CN901	087G 501 48 DL	AC SOCKET 3PIN + 3 Hole	
CN601	088G302J5G1VCL	PHONE JACK V/T 5P GREEN H=15	
BD901	093G 50460515	BRIDGE KBP308G-C 3A 800V KBP	
D901	093G 60335	DIODE SR515 5A/150V DO-201AD	
D909	093G 60519	DIODE SR560-MK23 5A/60V DO-27 SECOS	
D905	093G 60519	DIODE SR560-MK23 5A/60V DO-27 SECOS	
CN902	095G 825 9D518	HARNESS 9P(SCN)-9P(PLUG) 120mm	
	0Q1G 340 8140	SCREW Q1-SELF TAPING SCREW :Q x8.0	
CN804	311GW200A06ABX	WAFER 2.0mm 6P	
	705GHA57006	Q901 ASS'Y	
	709G4744 HM001	CONSUMPTIVE ASS'Y	
	H40G 45762429A	LABEL	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
C705	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	
C702	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	

C433	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	
C716	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	
C710	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	
R002	061G0603000 FF	RST CHIPR MAX0R01 1/10W FENGHUA	
R004	061G06031001FF	RST CHIPR 1 KOHM +-1% 1/10W FENGHUA	
R003	061G06032001FF	RST CHIP 2KOHM 1% 1/10W FENGHUA	
R001	061G06032001FF	RST CHIP 2KOHM 1% 1/10W FENGHUA	
Q901	057G 667941	MOSFET P0765ATF 7 650 TO-220F	
HS1	090G6064 1	HEAT SINK	
	0M1G 930 8120	SCREW 3x8	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q51G 6 4509	GLUE_RTV	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
U901	056G 379529	AC/DC CONVERTER IC LD7576AGR SOP-7	
U801	056G 700 11	LED DRIVER OZ9998BGN-A1-0-TR SOP-16	
Q607	057G 417517	Tra LMBT3906LT1G -200mA/-40V SOT-23 LRC	
Q608	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q801	057G 763 92	FET P8008HV 4A/80V SOP-8	
R612	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R601	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R602	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R603	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R609	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R610	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R613	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R604	061G0603223 JF	RST CHIPR 22KOHM 5% 1/10W FENGHUA	
R605	061G0603223 JF	RST CHIPR 22KOHM 5% 1/10W FENGHUA	
R606	061G0603333 JT	RST CHIP 33K 1/10W 5% TZAI YUAN	
R607	061G0603333 JT	RST CHIP 33K 1/10W 5% TZAI YUAN	
R811	061G0805000 JF	RST CHIPR 0 OHM +-5% 1/8W FENGHUA	
RJ801	061G0805000 JF	RST CHIPR 0 OHM +-5% 1/8W FENGHUA	
R804	061G0805100 JF	RST CHIPR 10 OHM +-5% 1/8W FENGHUA	
R806	061G0805102 JF	RST CHIPR 1K OHM +-5% 1/8W FENGHUA	
R907	061G0805102 JT	RST CHIPR 1K OHM +- 5% 1/8W TZAI YUAN	
R801	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	
R818	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	
R918	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	
R928	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	
R805	061G0805104 JT	RST CHIPR 100KOHM +- 5% 1/8W TZAI YUAN	
R807	061G0805109 JF	RST CHIPR 1 OHM +- 5% 1/8W FENGHUA	
R808	061G0805109 JF	RST CHIPR 1 OHM +- 5% 1/8W FENGHUA	
R815	061G0805164 JF	RST 0805 160K 5% 1/8W	
R935	061G08052002FT	RST CHIP 20K 1/8W 1%	
R916	061G08052002FT	RST CHIP 20K 1/8W 1%	
R810	061G08052002FT	RST CHIP 20K 1/8W 1%	
R920	061G0805202 JF	RST CHIPR 2KOHM +-5% 1/8W FENGHUA	
R919	061G0805221 JF	RST CHIPR 220 OHM +-5% 1/8W FENGHUA	
R803	061G0805304 JF	RST CHIPR 300KOHM +-5% 1/8W FENGHUA	
R802	061G0805304 JF	RST CHIPR 300KOHM +-5% 1/8W FENGHUA	
R809	061G08053303FT	RST CHIP 330K 1% 1/8W	
R816	061G08054701FT	RST CHIP 4K7 1/8W 1%	

R905	061G0805471 JT	RST CHIPR 470OHM +-5% 1/8W TZAI YUAN	
R925	061G08059101FF	RST CHIPR 9.1KOHM +-1% 1/8W FENGHUA	
RJ603	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ605	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ604	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ803	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ608	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ606	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
F801	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
RJ602	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
R917	061G1206100 JT	RST CHIPR 10 OHM +-5% 1/4W TZAI YUAN	
R814	061G12061009FF	RST CHIP 10 OHM 1% 1/4W FENGHUA	
R930	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R929	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R912	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R910	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R909	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R903	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R911	061G1206103 JF	RST CHIPR 10KOHM +-5% 1/4W FENGHUA	
R908	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	
R913	061G1206109 JT	RST CHIPR 1 OHM +-5% 1/4W TZAI YUAN	
R813	061G12062007FT	RST 1206 0.2R 1% 1/4W SMD12060R2	
R812	061G12062007FT	RST 1206 0.2R 1% 1/4W SMD12060R2	
R923	061G1206221 JT	RST CHIPR 220 OHM +-5% 1/4W TZAI YUAN	
R902	061G1206624 JF	RST CHIPR 620KOHM +-5% 1/4W FENGHUA	
R901	061G1206624 JF	RST CHIPR 620KOHM +-5% 1/4W FENGHUA	
R900	061G1206624 JF	RST CHIPR 620KOHM +-5% 1/4W FENGHUA	
R817	061G1206681 JT	RST CHIPR 680 OHM +-5% 1/4W TZAI YUAN	
C614	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C612	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C605	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C608	065G060310512K M	CAP 0603 1UF 10% 16V X7R	
C609	065G060310512K M	CAP 0603 1UF 10% 16V X7R	
C619	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C620	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C621	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C617	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C618	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C622	065G060320131J Y	CAP CHIP 0603 200PF J 50V NPO	
C611	065G060347131J Y	CAP CHIP 0603 470P 50V NP0 +/-5%	
C610	065G060347131J Y	CAP CHIP 0603 470P 50V NP0 +/-5%	
C602	065G060347412K Y	CAP CHIP 0.47uF 16V +/-10% X7R	
C601	065G060347412K Y	CAP CHIP 0.47uF 16V +/-10% X7R	
C603	065G060347412K Y	CAP CHIP 0.47uF 16V +/-10% X7R	
C606	065G060347412K Y	CAP CHIP 0.47uF 16V +/-10% X7R	
C812	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	
C813	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	
C923	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	
C914	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	
C906	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	
C815	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	

C803	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	
C802	065G080510332K Y	CAP CHIP 0805 10N 50V X7R +/-10%	
C915	065G080510332K Y	CAP CHIP 0805 10N 50V X7R +/-10%	
C814	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C924	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C912	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C926	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C806	065G080522432K Y	CAP CHIP 0805 220N 50V X7R +/-10%	
C807	065G080522432K Y	CAP CHIP 0805 220N 50V X7R +/-10%	
C811	065G080547432K T	CAP CHIP 0805 0.47UF K 50V X7R	
C810	065G080547432K T	CAP CHIP 0805 0.47UF K 50V X7R	
C804	065G080547432K T	CAP CHIP 0805 0.47UF K 50V X7R	
C808	065G120610171J Y	CAP 1206 100PF 5% 500V NP0	
C929	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C928	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C917	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C916	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
FB605	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
R608	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB604	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB602	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB603	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
D801	093G 60S907 T	SCHOTTKY B3100B 3A 100V SMB	
	709G4744 HS001	CONSUMPTIVE ASS'Y	
SW004	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW005	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW001	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW002	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW003	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
E715	715G4747K02000001C	KEY PCB FR1 SS 135*11*1.6mm	
CN901	006G 31500	EYELET	
IC903	056G 158 10 T	DC/DC AS431AZTR-E1 150MA 40V TO-92	
Q904	057G 530503 T	2SD1207T	
R915	061G 17222052T TZ	RST CFR 22R 5% 1/4W	
R906	061G152M10452T SY	RST MOFR 100KOHM +-5% 2WS FUTABA	
R904	061G152M25152T SY	RST MOF 250R 5% 2W	
R924	061G152M47852T SY	RST MOFR 0.47 OHM +-5% 2WS FUTABA	
C911	065G 2K152 2T6921	CAP CER 1500pF K 2KV Y5P	
C805	065G250K1052HT	CAP CER 1UF 10% 25V X7R	
C902	065G305M1023WR	CAP Y2 1NF 20% 250V Y5U	
C903	065G305M1023WR	CAP Y2 1NF 20% 250V Y5U	
C927	065G500K4732HT	CAP CER 47NF 10% 50V X7R	
C816	065G517K102 2T6921	CAP CER 1000PF K 500V Y5P	
C920	067G 2046812KT	CAP CS 680UF 20% 10V 8*11 3900mA GP1A6	
C801	067G215D3314KT	EC 330UF 20% 25V 10*12 ED	
C913	067G215Y4707KT	EC 47uF 20% 50V 6.3*11mm EG	
C604	067G305S1013HB	EC 100UF 20% 16V 6.3*7	
C613	067G305S1013HB	EC 100UF 20% 16V 6.3*7	
J613	071G 55 9 T	BEAD 3.5*0.8*6.0mm 110R HF	
FB901	071G 55 29	FERRITE BEAD	
FB902	071G 55 29	FERRITE BEAD	

FB903	071G 55 29	FERRITE BEAD	
FB801	071G 55 29	FERRITE BEAD	
FB802	071G 55 29	FERRITE BEAD	
F903	084G 56 4 B	FUSE 4A 250V	
F902	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4 B	FUSE 4A 250V	
ZD901	093G 39A6852T	ZENER MTZJ22B 21.51V 0.5W DO-35	
D907	093G 6452452T	SWITCHING 1N4148-B4006 0.2A 100V DO-35	
D601	093G 6452452T	SWITCHING 1N4148-B4006 0.2A 100V DO-35	
J906	095G 90 23	JUMP WIRE - -	
J905	095G 90 23	JUMP WIRE - -	
J904	095G 90 23	JUMP WIRE - -	
J903	095G 90 23	JUMP WIRE - -	
J902	095G 90 23	JUMP WIRE - -	
J901	095G 90 23	JUMP WIRE - -	
J815	095G 90 23	JUMP WIRE - -	
J814	095G 90 23	JUMP WIRE - -	
J813	095G 90 23	JUMP WIRE - -	
J812	095G 90 23	JUMP WIRE - -	
J607	095G 90 23	JUMP WIRE - -	
J606	095G 90 23	JUMP WIRE - -	
J604	095G 90 23	JUMP WIRE - -	
J603	095G 90 23	JUMP WIRE - -	
J602	095G 90 23	JUMP WIRE - -	
J601	095G 90 23	JUMP WIRE - -	
J921	095G 90 23	JUMP WIRE - -	
J910	095G 90 23	JUMP WIRE - -	
J909	095G 90 23	JUMP WIRE - -	
J907	095G 90 23	JUMP WIRE - -	
J611	095G 90 23	JUMP WIRE - -	
J612	095G 90 23	JUMP WIRE - -	
J908	095G 90 23	JUMP WIRE - -	
J609	095G 90 23	JUMP WIRE - -	
J610	095G 90 23	JUMP WIRE - -	
J608	095G 90 23	JUMP WIRE - -	
J811	095G 90 23	JUMP WIRE - -	
J801	095G 90 23	JUMP WIRE - -	
J802	095G 90 23	JUMP WIRE - -	
J803	095G 90 23	JUMP WIRE - -	
J804	095G 90 23	JUMP WIRE - -	
J805	095G 90 23	JUMP WIRE - -	
J806	095G 90 23	JUMP WIRE - -	
J807	095G 90 23	JUMP WIRE - -	
J808	095G 90 23	JUMP WIRE - -	
J809	095G 90 23	JUMP WIRE - -	
J810	095G 90 23	JUMP WIRE - -	
	709G4744 HA001	CONSUMPTIVE ASS'Y	
E715	715G4744P02000001C	PWR PCB FR1 SS 193X132+1.6(mm)	2nd source
E715	715G4744P02000001M	PWR PCB FR1 SS 195*132*1.6MM	
D903	093G 6026T52T	CTIFIER DIODE FR107	
D904	093G 6026T52T	CTIFIER DIODE FR107	

U703	056G 133 33AAC	LDO AZ1117H-1.8TRE1	
U401	056G 562369	SCALER NT68660UFG/B TQFP-100	
U701	056G 563514	IC AZ1117H-3.3TRG1 1A/3.3V SOT223	
U106	056G 662 52	ESD PROTECT AZC398-04S.R7G SOT23-6	
U107	056G 662 52	ESD PROTECT AZC398-04S.R7G SOT23-6	
U104	056G 662 52	ESD PROTECT AZC398-04S.R7G SOT23-6	
U102	056G 662 52	ESD PROTECT AZC398-04S.R7G SOT23-6	
U103	056G 662 52	ESD PROTECT AZC398-04S.R7G SOT23-6	
U101	056G1133 34 1	EEPROM M24C02-RMN6TP 2Kb SO-8	
U105	056G1133 34 1	EEPROM M24C02-RMN6TP 2Kb SO-8	
U402	056G2233 11	FLASH Pm25LD020C-SCE 2M SIOC-8	
Q401	057G 417517	Tra LMBT3906LT1G -200mA/-40V SOT-23 LRC	
Q402	057G 417517	Tra LMBT3906LT1G -200mA/-40V SOT-23 LRC	
Q701	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q706	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q705	057G 763940	MOSFET AO3401A SOT-23	
R711	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R453	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R410	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R409	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R407	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R406	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R118	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R117	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R110	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R109	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R104	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R103	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R141	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R140	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R139	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R138	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R137	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R136	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R135	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R134	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R124	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R127	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R128	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R129	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R431	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R434	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R439	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R703	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R712	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R798	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R101	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R102	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R105	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R106	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R108	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	

R111	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R113	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R119	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R121	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R123	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R488	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R487	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R424	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R130	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R799	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R714	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R704	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R444	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R429	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R427	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R425	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R415	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R422	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R715	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R432	061G0402105 JT	RST CHIP R 1Mohm 1/16W +/-5% TZAI YUAN	
R125	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R126	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R411	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R413	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R719	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R701	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R454	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R133	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R116	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R416	061G0402224 JT	RST CHIP 220K 1/16W 5% TZAI YUAN	
R423	061G0402224 JT	RST CHIP 220K 1/16W 5% TZAI YUAN	
R405	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	
R404	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	
R401	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	
R419	061G0402394 JF	RST CHIP R 390K +/-5% 1/16W FENGHUA	
R408	061G04024700FT	RST CHIP 470R 1/16W 1%	
R142	061G0402471 JT	RST CHIP 470R 1/16W 5% TZAI YUAN	
R114	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R115	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R131	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R132	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R702	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R721	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R120	061G0402750 JT	RST 0402 75R 5% 1/16W	
R112	061G0402750 JT	RST 0402 75R 5% 1/16W	
R107	061G0402750 JT	RST 0402 75R 5% 1/16W	
R122	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R417	061G0603331 JT	RST 0603 330R 5% 1/10W	
R418	061G0603471 JT	RST CHIPR 470OHM +/-5% 1/10W TZAI YUAN	
FB701	061G0805000 JT	RST 0805 0.05R MAX 1/8W	
R726	061G0805000 JT	RST 0805 0.05R MAX 1/8W	

R448	061G1206301 JT		RST CHIPR 300 OHM +-5% 1/4W TZAI YUAN	
R449	061G1206301 JT		RST CHIPR 300 OHM +-5% 1/4W TZAI YUAN	
C120	065G040210232K	A	CAP 0402 1NF 10% 50V X7R	
C417	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C418	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C419	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C422	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C424	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C425	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C427	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C434	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C701	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C703	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C704	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C706	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C712	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C713	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C718	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C113	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C114	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C115	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C117	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C118	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C119	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C402	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C403	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C415	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C412	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C411	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C410	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C409	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C408	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C405	065G040210412K	Y	CAP 0402 100NF 10% 16V X7R	
C414	065G0402105A5K	Y	NO-SUGGEST CAP 0402 1UF 10% 10V X5R	
C181	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C182	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C426	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C428	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C715	065G040222415K	Y	CAP CHIP 0402 220nF 16V X5R	
C429	065G040222415K	Y	CAP CHIP 0402 220nF 16V X5R	
C116	065G040222415K	Y	CAP CHIP 0402 220nF 16V X5R	
C101	065G040222415K	Y	CAP CHIP 0402 220nF 16V X5R	
C110	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C108	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C107	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C105	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C104	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C102	065G040247312K	T	CAP 0402 47NF 10% 16V X7R	
C103	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	
C106	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	
C109	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	

C423	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
C421	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
C416	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
C413	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
C404	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
C401	065G0805475A2K Y	NO-SUGGEST CAP 0805 4.7UF 10% 10V X7R	
FB407	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB409	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB401	071G 56V301 M	CHIP BEAD 0805 300R 25% 700mA	
FB404	071G 56V301 M	CHIP BEAD 0805 300R 25% 700mA	
FB405	071G 56V301 M	CHIP BEAD 0805 300R 25% 700mA	
FB408	071G 56V301 M	CHIP BEAD 0805 300R 25% 700mA	
D102	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D101	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
ZD102	093G 39GA01 T	RLZ5.6B	
ZD101	093G 39GA01 T	RLZ5.6B	
	709G4502 HS001	COMSUPTIVE ASS'Y	
E715	715G4502M01000004C	MAIN PCB FR4 DS 80X72+1.6(mm)	2nd source
E715	715G4502M01000004I	MAIN PCB FR4 DS 80X72X1.6MM	
	H52G1701 1	MESH PRINTTING_PAPER	